

The Cotton Gin and Oil Mill

PRESS

A PIONEERING AND RESPONSIBLE PUBLICATION

AUGUST 23, 1958



THE MAGAZINE OF THE COTTON GINNING
AND OILSEED PROCESSING INDUSTRIES

IN THIS ISSUE:

Proceedings

Twelfth Annual

Cotton Mechanization Conference

Brownsville, Texas

August 12-13-14, 1958

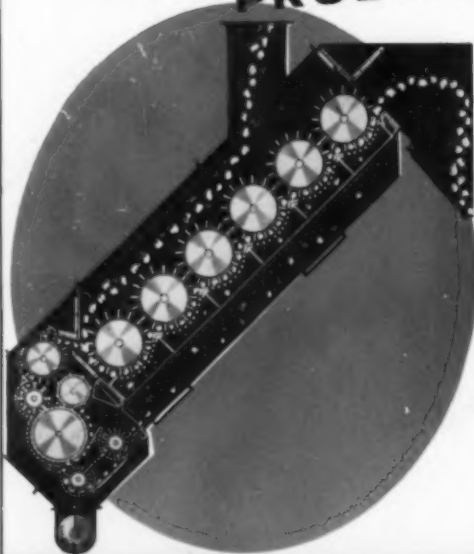
Sponsored by National Cotton Council



EUGENE B. POWER
UNIV. MICROFILMS
313 N. 1ST ST.
ANN ARBOR, MICH.
3

**MECHANIZED
AGRICULTURE HAS
CREATED THE
PROBLEM....**

**LUMMUS HAS
SOLVED IT!**



**LUMMUS R. C. GRIDMASTER
EXCELS IN CLEANING
MACHINE PICKED COTTON.**

Owners report that it runs trouble free and does not require frequent overhauling.

The R. C. Gridmaster may be installed in any plant, with any kind of gin equipment, with few changes.

The Reclaimer Section of this cleaner recovers the cotton from the trash and does not drag the cotton through the dirt.

The Gridmaster is the answer to machine picked cotton.

LUMMUS COTTON GIN CO. Columbus, Ga. U. S. A. • Dallas • Fresno • Memphis

CONTINENTAL'S

Impact Cleaner



***Sets the Standard of Efficiency
in Cleaning Roughly Picked Cotton***

This exclusive Continental machine has demonstrated under widely varying conditions its superior ability to extract sticks, stems, hulls and motes in quantities which no conventional cylinder cleaner can remove.

This is because there are no screens beneath the revolving disc cylinders to obstruct the passing of the foreign matter, eliminating once and for all the recurring problem of cleaning these screens.

*We invite you to write for Bulletin 190-B
which gives complete descriptive details.*

Continental

GIN COMPANY

Second-class mail privileges authorized at Dallas, Texas.

This machine helped raise grades and profits
in every major cotton producing state last year.
Include it in your plans for

'58



Extra extraction of
fine trash with the

MITCHELL

The new 9-saw Super Champ adds two extra saws — five extra revolving members — to extract fine dry leaf and pin trash formerly considered beyond extraction. If such trash is a problem in your area, write for details, today.

Super  Champ

JOHN E. MITCHELL COMPANY

3800 COMMERCE • DALLAS, TEXAS

Manufacturers of Fine Machinery for More Than Half a Century

THE COTTON GIN AND OIL MILL PRESS

THE COTTON GIN AND OIL MILL PRESS...

READ BY COTTON GINNERS,
COTTONSEED CRUSHERS AND
OTHER OILSEED PROCESSORS
FROM CALIFORNIA TO
THE CAROLINAS

★ ★ ★

OFFICIAL MAGAZINE OF:

NATIONAL COTTONSEED
PRODUCTS ASSOCIATION
NATIONAL COTTON GINNERS'
ASSOCIATION
ALABAMA COTTON GINNERS'
ASSOCIATION
ARIZONA GINNERS'
ASSOCIATION
ARKANSAS-MISSOURI
GINNERS' ASSOCIATION
CALIFORNIA COTTON
GINNERS' ASSOCIATION
THE CAROLINAS GINNERS'
ASSOCIATION
GEORGIA COTTON GINNERS'
ASSOCIATION
LOUISIANA-MISSISSIPPI
COTTON GINNERS'
ASSOCIATION
NEW MEXICO COTTON
GINNERS' ASSOCIATION
OKLAHOMA COTTON
GINNERS' ASSOCIATION
TENNESSEE COTTON
GINNERS' ASSOCIATION
TEXAS COTTON GINNERS'
ASSOCIATION

★

THE COTTON GIN AND OIL MILL PRESS

is the Official Magazine of the
foregoing associations for
official communications and
news releases, but the
associations are in no way
responsible for the editorial
expressions or policies
contained herein.

WALTER B. MOORE

Editor

HELEN TROY

Editorial Assistant

WASHINGTON REPRESENTATIVE
(EDITORIAL ONLY)

FRED BAILEY

744 Jackson Place, N.W.
Washington 6, D. C.

Published by

HAUGHTON PUBLISHING COMPANY

RICHARD HAUGHTON

Chairman of the Board

DICK HAUGHTON, JR.

President and Advertising Manager

GEORGE H. TRAYLOR

Executive Vice-President and
Secretary-Treasurer

IVAN J. CAMPBELL

Vice-President

B. P. RIDGWAY

Vice-President and
General Superintendent

SUBSCRIPTION RATES:

Domestic: 1 year \$3; 2 years \$5; 3 years \$7.
Foreign: Latin-American countries \$10; all others
\$15 per year. (Not accepted for "Iron Curtain"
countries). All subscriptions cash with order.

Published Every Other Saturday

★ ★ ★

EXECUTIVE AND EDITORIAL OFFICES:

3116 COMMERCE STREET, DALLAS 26, TEXAS



OUR COVER PICTURE:

The machines that have meant so much in bringing about increased efficiency and economy in the growing and harvesting of cotton are featured in special material in this issue of The Press. As it has done in the past, this publication is printing summaries of papers presented at the Beltwide Cotton Mechanization Conference—material that will be reprinted and distributed as the Conference Proceedings by the National Cotton Council. For a cover scene, we've chosen a typical tractor operation on flat farmland where mechanization has made the most rapid progress.

Photo by Bob Taylor

laugh it off!



During a seance, a medium was bringing people back from the other world. A nine-year-old kid was among those present. "I want to talk to Grandpa," he insisted.

"Quiet!" hushed the medium, quite annoyed.

"I want to talk to Grandpa," repeated the kid.

"Very well, little boy," said the medium, making a few hocus-pocus passes. "Here he is."

"Grandpa," said the little boy, "what are you doing there? You ain't dead yet!"

• • •

"I thought that joke of mine was rather a good one," said the comedian, "but the author said it was far-fetched. I wonder what he meant?"

"Far-fetched," echoed the friend. "I suppose he meant Noah brought it over with him in the ark."

• • •

"I'm not going out with Bill any more. He knows too many naughty songs."

"Does he sing them to you?"

"Well, no . . . but he whistles them."

• • •

Neighbor: My wife is prolonging her holiday. I need her at home, but it seems useless to write suggesting that she return.

Other neighbor: Get one of the neighbors to suggest it!

• • •

While visiting a couple who had recently moved into a new home, I inquired how they liked their neighbors.

"Well," said the husband, winking at me on the sly, "I'd say I'm pretty lucky there. We have a good-looking widow living on each side of us. Quite unusual."

"Yes, it is," his wife flashed back, "and if I catch him fooling around with either one of them, there'll be three in a row!"

• • •

It's foolish to worry about confused, miserable teenagers. Give them a few years and they'll turn out to be confused, miserable adults.

• • •

"What a sweet baby!" said the nervous young minister, visiting a parishioner. "And just how old is—er—the tot now?"

"Just seven weeks, sir," replied the proud mother.

"Well, well," said the minister, helpfully. "Your youngest, I suppose?"

• • •

A patient at a mental hospital had just been told by his doctor that he could go home to his wife.

"I can go back to my wife!" sneered the man. "So you think I'm still crazy, eh?"

• • •

If someone is interested to know why soldiers were called dog-faces during World War II this is why: We wore dog tags around our necks; slept in a pup tent at night; came when they whistled for us; and the rest of the time sat on our tails and growled.

• • •

Young bride to grocer, "I would like a pint of oysters, please."

"Large or small, Madam?"

She thought for a moment, "Well," she reasoned, "they're for a man with a size 15 collar."

COTTON.. GINNED WITH

Pride



is COTTON wrapped
WITH

"Pride of India"

JUTE BAGGING



C. G. Trading Corporation

122 EAST 42nd ST. • NEW YORK, N. Y.

Stocks
maintained
in Texas,
South Carolina,
and California.

SALES REPRESENTATIVES THROUGHOUT COTTON PRODUCING DISTRICTS

HIGHER Solvent Recovery

WITH NEW PHILLIPS 66 HIGH PURITY* NORMAL HEXANE

CHECK THESE EXTRA BENEFITS

- ✓ High Normal Hexane Content assures quality oils.
- ✓ Low Benzene and Sulfur content improves color and odor of oil.
- ✓ Absence of non-volatile matter. No solvent residue left in meal.
- ✓ Narrower boiling range—improves operations and solvent recovery.
- ✓ Available NOW in commercial quantities at no increase in price.

Oil seed processors are discovering that NEW PHILLIPS 66 HIGH PURITY NORMAL HEXANE improves the efficiency of their solvent recovery processes and reduces desolventizing costs.

This new improved solvent—containing a minimum of light and heavy ends—has been successfully field tested. It is recommended for all oil seed extraction operations. Best news of all, NEW PHILLIPS 66 HIGH PURITY NORMAL HEXANE is now available at *no increase* in price! Place your order today.

*** MINIMUM 85%! For the first time a high purity normal hexane is offered at commercial prices.**



PHILLIPS PETROLEUM COMPANY • Special Products Division

Bartlesville, Oklahoma  Bartlesville 6600

Now

Directors of the Texas Cotton Ginners' Association formed a permanent Air Pollution and Nuisance Control Committee several years ago. The primary purpose was to investigate and work out solutions to problems of ginners concerning the disposal of gin trash and other waste material which causes air pollution and nuisances to the surrounding communities.

In addition, the committee was asked to develop a program of guidance for official action by the Association in this field.

At the Directors' and Allied Industries' Meeting in Dallas last May, the Air Pollution Committee instructed our office to publish all of the available material we had on this problem. This publication has been printed and distributed as Special Bulletin No. 1, "What We Know About Air Pollution Control."

It is the result of the combined efforts of many individuals and agencies throughout the Cotton Belt. Research on this problem, along with experimental testing done in several commercial gins in the state, over the past two or three years has made available much of the information included in the Special Bulletin.

Since the Bulletin is a 31-page publi-

Gin Yards Can



Be Clean

By
EDWARD H. BUSH

Executive Vice-President,
Texas Cotton Ginners'
Association

cation with illustrations, charts, diagrams, and pictures, it would be impossible to include even a large portion of the information in this article. We do not claim that the Bulletin is the final answer to all of the problems. We do feel, however, that it is a step in the right direction, and are proud that our Association has had a part in making this contribution to the industry.

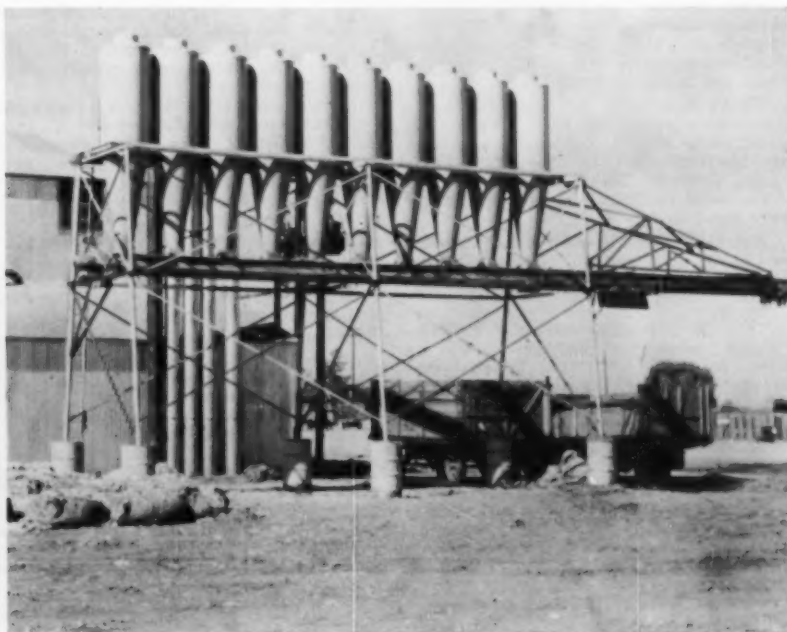
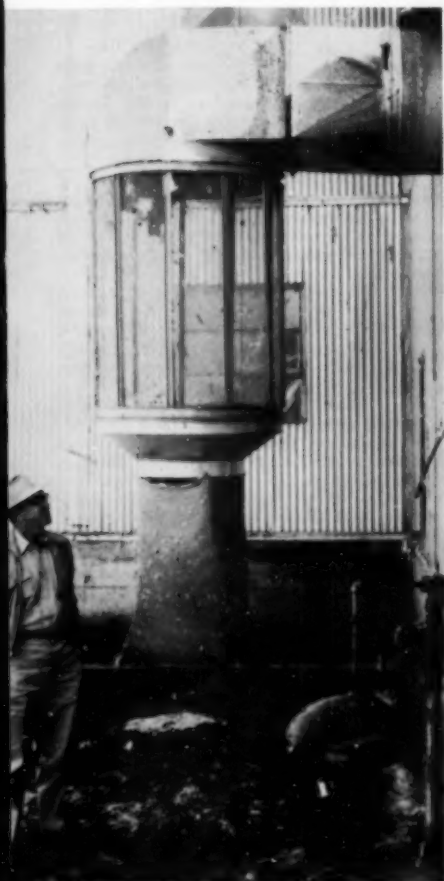
It is well known that problems arising from air pollution near gins have become more serious and costly as residences and business establishments have surrounded many cotton gins. Fires resulting from the burning of cotton burs have caused increased insurance rates and, in some cases, refusal of coverage by underwriters. Both research studies

and field trials have shown that cotton burs can be returned to the land with more dollar benefit to the farmer than the cost of hauling and distributing. These developments caused the ginning industry to request stepped-up research

(Continued on Page 46)

BELOW (Figure 1) is battery of small-diameter, high-velocity cyclones installed in a cotton gin near Bakersfield, Calif.

LEFT (Figure 2) Lint-fly catcher installed on a lint cleaner discharge at Farmers' Co-op Gin, Acuff, Texas. The sack used to collect lint-fly is emptied daily.



The Cotton Belt



TRUCKLOADS of Mexican cotton wait at the customs office at Brownsville, Texas, as a signboard points their way to the port where they will be loaded for export to markets formerly supplied by the U.S. Cotton Belt.

We Gave Away!

10,000 bales daily from Mexico go to markets the U.S. could supply.

By **WALTER B. MOORE**

Editor,

The Cotton Gin and Oil Mill Press

THERE'S A FLOOD on the Rio Grande. It's not water. The Rio, though it's called Grande, is no more than a creek where it reaches the Gulf.

The flood's white gold. It's cotton coming from the Cotton Belt we gave away. Truck after truck, loaded with cotton, comes from Mexico into Brownsville, Texas. Endlessly, they fill the highways to the Port of Brownsville. There, they go aboard ships for export.

U.S. cotton, meanwhile, fills warehouses under the loan program. It won't sell abroad.

■ **FIVE MILLION POUNDS A DAY**—Five million pounds, daily,—10,000 bales a day—were crossing the Rio Grande as the Beltwide Mechanization Conference met to help U.S. growers cut costs and hike efficiency.

That's \$1,250,000 worth of cotton, or more, at current prices in Mexico. It's good, clean cotton that could be grown at Spartanburg, S.C., or Chickasha, Okla., Georgia, Tennessee or Louisiana—the same varieties of cotton that grow over most of the U.S. Belt.

But this cotton is coming from another Cotton Belt, south of the Rio Grande. It's going to our markets abroad, our former markets, that is.

■ **CONGRESSMEN TAKE NOTE** —“Every member of Congress ought to have to stand by the international bridge and watch these cotton trucks cross,” a Missouri cotton leader commented bitterly.

“Why should we bat our brains out trying to grow cotton better, while we encourage others to take our markets?”

This article isn't an attempt to answer his question. There's no criticism here, intended or implied, of the alert, progressive individuals and firms in

Mexico and the U.S. that are profiting from the opportunity which the U.S. has dumped in their laps. This article isn't anti-price-supports, isn't anti anything.

This is written merely as an honest effort to report a shocking sight at the Brownsville bridge. You've got to see it to feel its impact. You can write about it and read about it for years—but you've got to be standing on the corner, watching all the bales go by, to appreciate fully what's happened.

Then, you ask yourself, “What kind of fools have we been?”

■ **IT'S HAPPENING EVERYWHERE** —Much the same thing has happened all over the world of cotton. But nowhere is the picture more vivid than on the banks of the Rio Grande.

North of the river there is a fine agricultural area, the Lower Rio Grande Valley of Texas. Here cotton, citrus and truck crops grow abundantly and profitably. Here gins, oil mills and other service industries do a good job for producers and consumers.

Here, also however, one sees abandoned gins and oil mills. There are thousands of acres of land taken out of cotton under the acreage control program and the Soil Bank.

These acres, these gins and these oil mills that are gone from the U.S. economy have been replaced—south of the Rio Grande. South of the river, there is an expanding cotton economy. Twenty years ago, there were only 89,000 acres in cotton—only 42,000 bales produced. Then, we reduced production and priced our cotton higher than the market would pay. The result is obvious:

The Matamoros area, today, has 750,000 acres in cotton—almost twice as many acres as the allotment in the

Texas Valley counties along the Rio.

One hundred and eleven modern gins serve the Mexican cotton area there—about the same number as in the Texas Valley, now, but the proportion of new gins is higher, of course, in the newer Mexican area.

Seven oil mills, with 1,000 tons of crushing capacity per 24 hours, make Matamoros one of the world's leading cotton crushing centers. (Comparing it with the Lower Valley of Texas, again, there are four mills on the U.S. side.)

Six hundred thousand bales of cotton are being produced in the Matamoros area to keep these gins, oil mills and other industries humming. Only about 350,000 bales are being produced in the counties just north of the river.

To complete the tale, cotton expansion all over Mexico has hiked production from less than half a million bales 20 years ago to well over two million bales this season. (This Mexican increase is about equal to the 1958 crop in the Carolinas, Georgia, Alabama and Tennessee, combined.)

In other words, the acres we've taken out—the bales we've not produced—the gins and oil mills we've sacrificed—are being replaced, for the most part. Mexico is doing a tremendously successful job of replacing many of them, and so are other countries that can grow cotton.

■ **THEY CAN SELL IT, TOO** —More important, these other countries are selling their cotton. At the same time, too much U.S. cotton is going into storage under our federal loan program.

There's no use trying to discuss here

(Continued on Page 13)

DIXISTEEL® SIDE-OPENING BUCKLE



THE BUCKLE WITH ALL THESE FEATURES

- Easy on the hands
- Strong on the tie
- Good throat, easy threading
- Guaranteed proof strength of 3,000 lbs.
- Breaking strength up to 6,000 lbs.
- Made from new-billet steel
- Tumbled to eliminate sharp edges
- Lies flat to band; minimizes friction against other metals in boxcars—believed a cause of cotton fires
- Shipped in cotton bags within each lift of cotton ties

Now available with Dixisteel ties

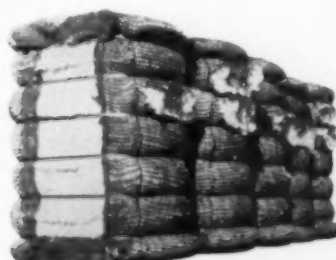
Ginners, compressors, and shippers alike will welcome this new DIXISTEEL Side-Opening Buckle, now available with the favorite of all cotton ties — DIXISTEEL.

They are cold punched from hot-rolled special analysis, new-billet steel, and tumbled to provide a smooth finish. There are no sharp edges to cut ties, hands, or gloves.

DIXISTEEL Buckles consistently run 15% higher in strength than ASTM standards. They will not snap at the eye, spread, bend or break.

These new buckles are packed in cotton bags, 300 to each bag. Five 50-lb. bags are packed inside of each lift of 50 bundles of cotton ties.

Specify DIXISTEEL Cotton Ties with the new side-opening DIXISTEEL Buckles.



DIXISTEEL COTTON TIES

Standard bundles weigh approximately 45 pounds and contain 30 ties—each 15/16 inches by approximately 19 gauge, 11½ feet long. Sixty-pound ties are also made. Buckles available separately in any quantity.

DIXISTEEL®

COTTON TIES
AND BUCKLES

made only by

Atlantic Steel Company

ATLANTA, GEORGIA

Better Than Two-Bales Per Acre

Just Disk, Plant, Treat and Then Harvest

OVER TWO BALES to the acre with no cultivation or no regular chopping. Sound like a dream?

But this is being done on the plantation of R. A. Pickens at Pickens in Southeast Arkansas. He is the subject of a feature article in the July-August issue of *Cotton Farmer*, written by Walter F. Little, Jr., editor.

Pickens has reduced the size of his rows to 20 inches, while his neighbors have been going to four-row, skip-row planting. So far, the closed-in acreage has been limited to a small portion of the entire plantation, but the results have been so successful that extensive acreages planted by the method are under consideration for future years.

The article says: "This is how it is done. First the field is disked, then smoothed once with a small leveler. It is not made into rows. Then the field is planted with Delfos cotton on rows spaced only 20 inches apart. The entire field is treated with Karmex . . . clear across the field and in amounts slightly

in excess of that recommended for ordinary application. Fertilization is at a level about 25 percent more than is used on cotton planted in the conventional manner: about 100 to 120 pounds of nitrogen are put down per acre.

"The field is left alone to do its own growing. The only thing approaching cultivation is a disking around the outer edges of the field periodically to keep down weed growth in a band around the field. Only work done in the actual field is an occasional spot chopping of an outgrowth of a patch of weeds. Insect control is carried on entirely by airplane . . . as is all the insect control work on the plantation, regardless of row width.

"The field always looks ragged and stunted. The stand is spotted in some parts. In midsummer, it frightens us by its appearance," says Pickens about the experiment. "But at picking time, the yields speak for themselves."

"Speaking of picking, by harvest time

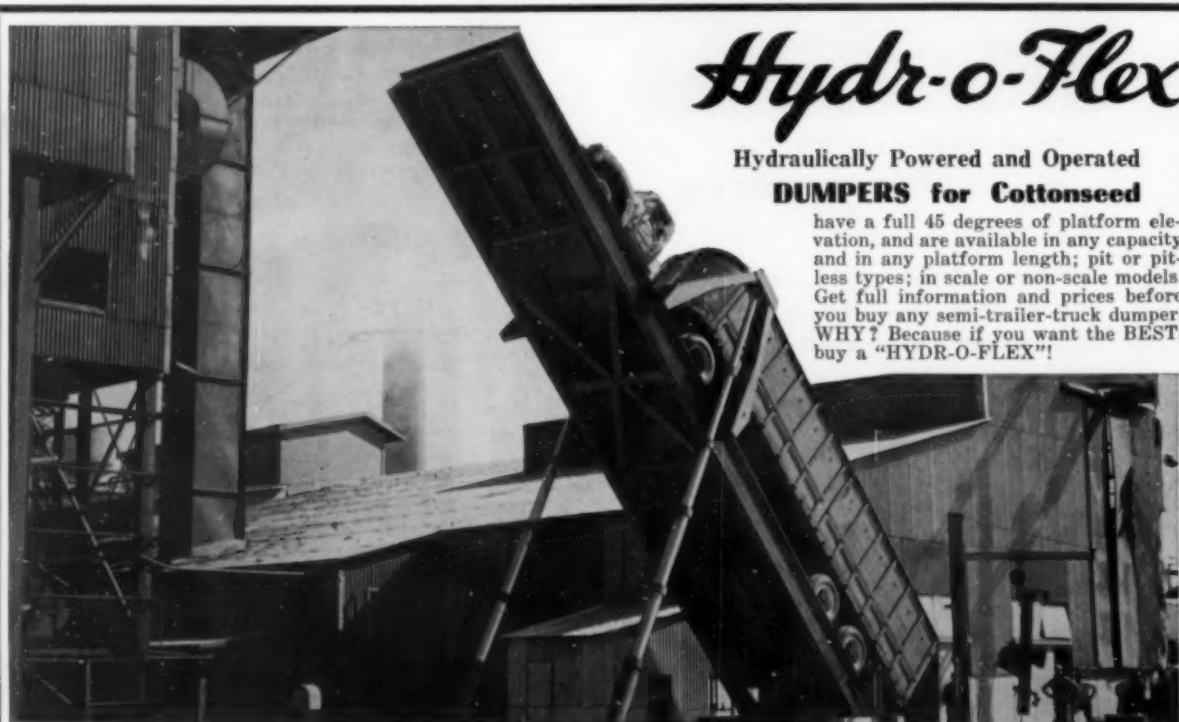
the field is a virtual jungle of tangled cotton stalks and must be hand picked. The first year, the field was given to a tenant to pick against his objections. It is not an easy chore to pick and even in the fall the appearance belies the true yield. After the first picking though, the field became the primary choice for all the tenants, because of the high return on pounds picked.

"First two years of the experiment were 1955 and 1956. Because of last year's late and wet spring, no fields were planted on 20 inch rows. However, a sizable field is in the closed-in cotton this year.

"Cotton was planted the first two years on light, sandy soil. This season a portion of the field is made up of heavier soil. The results are being watched closely. All of the fields used have been in cultivation for long periods . . . up to 135 years . . . which makes the yield records even more spectacular. Pickens thinks the method might have special application to new ground: since such ground might have hidden stumps near the surface, the no-cultivation feature of the method would gain added significance.

"Where did the idea originate? 'The experiment stations in Arkansas have tried the method with favorable results in years past,' Pickens said. 'So I thought it about time some farmer gave it a try.'

"So far, the results are lowered production costs and greater yields—two very desirable accomplishments!"



Hydr-o-Flex

Hydraulically Powered and Operated
DUMPERS for Cottonseed

have a full 45 degrees of platform elevation, and are available in any capacity and in any platform length; pit or pitless types; in scale or non-scale models. Get full information and prices before you buy any semi-trailer-truck dumper. **WHY? Because if you want the BEST, buy a "HYDR-O-FLEX"!**

Manufactured by the
"HYDR-O-FLEX" DIVISION OF

Air-o-Flex EQUIPMENT Co.

3030 EAST HENNEPIN AVE.

MINNEAPOLIS 14, MINN.

FREE

Anderson's NEW 1958 Expeller Catalog



Your Complete
Guide
on the World's
Finest
Oil Extraction
Machines

Every vegetable oil milling superintendent, manager and executive can use or will want a copy of Anderson's new 1958 Expeller Catalog. In it, you find up-to-date information on the four newest models of Anderson Twin Motor Super Duo Expellers. Also information on mechanical extraction processes. Learn under what conditions each machine should

be used and the correct application for a smooth operating plant. Find out how the Anderson twin motor principle and the unique Anderson screening tank and group oil cooling system result in more efficient operation. Be sure you have a copy of this important catalog in your library. Mail coupon for your complimentary copy today!



THE V. D. ANDERSON COMPANY

division of International Basic Economy Corporation

1941 West 96th Street

Cleveland 2, Ohio

Please send copy of your new booklet "Anderson Twin Motor Super Duo Expellers".

Name

Company

Address

City Zone State

Cotton Wins Long, Hard Fight

COTTON HAS WON a long, hard fight. It is a victory for everyone in cotton, just as much for the individual ginners, crushers and others who wrote their representatives in Congress as for leaders who fought in Washington. Special praise, however, is due the staffs of such organizations as the National Cotton Council, National Cottonseed Products Association, American Farm Bureau, American Cotton Producers Associates and other state and national farm and cotton organizations.

The victory, of course, consists of the enactment of farm legislation this week, after many months of frustration and failure. No one would call this the ideal cotton law. But, almost everyone will agree that it is better than further acreage curtailment, which we would have had under previous legislation. Everyone feels that it is the best law that could be obtained, under the circumstances—that it offers cotton an opportunity to move forward.

This feeling of optimism is reflected in the comments of a representative group of cotton leaders received by The Cotton Gin and Oil Mill Press, as follows:

James Hicky

President, National Cottonseed Products Assn.

During the past several weeks we have seen the greatest coordinated effort on the part of all segments of the cotton industry. They joined together in demanding that Congress enact during its present session corrective cotton legislation for 1959.

When we first started to fight for corrective measures our interest and ideas were varied. As we moved on this problem first one and then the other modified their position, and now the cotton industry as a whole is in closer agreement than at any time that I can recall. I think that we all fully realize that in this fast moving world of ours, any industry that expects to survive, must do so through an economical and efficient operation. Top efficiency, in most instances, is directly related to volume. The new cotton legislation provides for a larger acreage of cotton, which, in my opinion, will help to develop the cotton industry on a sounder basis in the years to come.

Now, that we are all working together it is imperative we direct our efforts towards expanded research and promotion on cotton and cottonseed products. This sort of approach will enable us to take our rightful place in the fiber and feed markets of the world.

F. H. Heidelberg

Executive Vice-President, North Carolina Cotton Promotion Assn.

Failure of Congress to pass a farm bill would have left farmers to proceed

Cotton Victories!

Cotton won two major victories the past week. One was the passage of the farm bill; the other the passage of the textile labeling bill. Both measures have had the fullest support of the cotton industry, and their provisions are generally familiar to readers of The Press. The accompanying article, and the report from our Washington Bureau elsewhere in this issue, give more information. Other last-minute Congressional action included passage of the bill extending the Mexican Labor program and, earlier, the Reciprocal Trade extension.

down an uncertain road toward 1959. Allied industries would have faced perplexing production plans. Textile manufacturers would have had to re-evaluate supply sources. Now, all of this is changed!

In this Southeastern section there are more than a million people on cotton farms, not to mention additional thousands connected with cotton processing industries and allied businesses whose livelihood is related to this crop. What are these and their leaders thinking?

We are determined to survive! We are more than ever conscious that survival requires united action in the Southeast. Some are improving gin plants. Some are taking the long step toward erection of solvent plants. In short, we believe that cotton is a native and needed crop in this section; that it can and will become a suitable part of our agricultural economy; that we can compete with any fiber or section as research and education bring efficiency improvement; and, that assignment of unplanted and unwanted acres to those men of the land for whom farming is truly a way of life, through provisions of law and administrative rulings, is the just and vital key to this accomplishment.

W. O. Fortenberry

Plains Cotton Growers, Inc. President,

Naturally we are delighted that cotton producers will not face such a drastic acreage cut in 1959 with passage of new cotton legislation by Congress.

Our organization did not openly support or condemn passage of the Senate farm bill because our directors thought better legislation could be obtained and passage of the House bill is evident of that. The present bill, which is the House bill, contains provisions recognizing light spotted cotton and this has been a major goal of the Plains Cotton Growers, Inc., for more than two years. This alone will mean millions of dollars to the Plains

area and we are delighted that this is finally recognized in legislation.

As to how many of our members will select the "A" or "B" plan, it is a bit early to say. Many of our members are concerned about additional acreage and this plan will certainly offer an opportunity for them. Other farmers who now have most of their best land in cotton may prefer to stay with plan "A".

The bill does give us a concrete future for cotton and the entire cotton industry can proceed on known conditions. I would say the officers and directors of my organization are well satisfied now with cotton legislation.

• Food Fats Supply To Set Record

FOOD FATS SUPPLIES will be at record high levels in the season starting Oct. 1.

Domestic consumption is not expected to increase, USDA reports, and surpluses will be larger unless fats and oils can be exported.

Stocks to start 1958-59 will be about 10 percent above edible fats supplies of 11,700,000,000 pounds a year ago. The carryover of oilseeds also is up about 20 percent, due to the record 20 million bushels of soybeans on hand.

Production of lard, soybean and cottonseed oil will be larger this season. The 2,700,000,000 pounds of lard will represent an increase of 200 million pounds, cottonseed oil will rise 75 million pounds and soybean oil output will jump 594 million pounds to record 4,300,000,000 pounds in 1958-59.

Cotton Breeders Attend Workshop on Research

National Cotton Council and American Cotton Manufacturers' Institute have held a five-day workshop for cotton breeders, spinners and research workers to review problems and progress.

In attendance were: P. H. Brown, Bobshaw Pedigreed Seed Co., Indianola, Miss.; James B. Dick, ARS, USDA, Delta Branch Experiment Station, Stoneville, Miss.; Early C. Ewing, Jr., Delta and Pine Land Co., Scott, Miss.; Burt Johnson, National Cotton Council, Memphis; Norman Justus, ARS, USDA, Delta Branch Experiment Station, Stoneville, Miss.; C. W. Manning, Stoneville Pedigreed Seed Co., Stoneville, Miss.; Carl A. Moosberg, ARS, USDA, Cotton Branch Experiment Station, Marianna, Ark.; J. Winston Neely, Coker Pedigreed Seed Co., Hartsville, S.C.; W. P. Sappenfield, Southeast Missouri Research Center, Sikeston, Mo.; S. W. Self, Louisiana Experiment Station, Baton Rouge, A. L. Smith, Crops Research Division, ARS, USDA, Alabama Experiment Station, Auburn; B. A. Waddle, Arkansas Experiment Station, Fayetteville, Ark.; and John Wigington, American Cotton Manufacturers' Institute, Clemson, S.C.

The Cotton Belt

(Continued from Page 8)

the complex situation that makes Mexican cotton go aboard a ship at Brownsville while U.S. cotton goes into a cotton warehouse. We couldn't explain it, even if we understood all of its complications. In the simplest language, though, here's what was happening when we were in Brownsville:

A Dallas cotton merchant we know could supply U.S. cotton at about 35 cents a pound for export. He could supply Mexican cotton for about 27 cents. There were certain export helps for the U.S. cotton, (he tried to explain to us), that narrowed the difference. But, even so, there was about \$10 a bale difference in favor of Mexican lint.

So, a Dutch ship in the Port of Brownsville, along with ships from other nations, was busy loading Mexican cotton. And compresses and warehouses were busy storing U.S. cotton. And, the Dallas merchant was flying home.

■ **WE CAN COMPETE** — Not even this merchant, however, doubted that the U.S. cotton industry could compete with foreign growers, if it had the opportunity.

"Can we compete?" We asked this question of many on both sides of the border. In varying forms, often emphasized by a profane adjective, the answer was "yes."

Foreign growers and processors, such as those in the Matamoros area, have the advantage of lower labor costs, of course. They have disadvantages, too. Among these are:

High taxes—one Mexican grower estimated that one-fourth of his income went for taxes, one way or another, on each bale of cotton.

High interest costs—crop loans are costly. Growers may pay 10, 12, 14 or 18 percent interest on money to finance their cotton.

Pink bollworms and other insects, red tape in various operations, lack of skilled labor to operate modern machinery, and other factors were mentioned as tending to balance out the competitive position in this country and abroad. Available water for irrigation also is a limiting factor in the Matamoros region. A leading producer offered his opinion that Mexican cotton production is not likely to expand very much beyond its present levels in the next few years.

"We're not at our peak, yet," he added, "but we are approaching it."

■ **WHAT SHOULD WE DO?** — This article, as mentioned earlier, is not intended to criticize any past program, here or abroad, nor does it seek to supply the answers. But, those to whom we talked, on both sides of the border, were watching with intense interest the efforts in the U.S. Congress to permit greater flexibility in pricing cotton from this country so that it can go into foreign markets on a competitive basis.

Cotton leaders on both sides of the Rio Grande agreed that much of the future of cotton, north or south of the river, will be determined by politicians rather than producers. And, if politicians don't provide the right answers, cotton leaders along the border are convinced that the Cotton Belt below the Rio Grande will grow. And ours will shrink even more.

• 15-Cent Credit Granted Approved Magnets

TEXAS Insurance Commission has granted a 15-cent credit for approved installations of magnets in cotton gins.

Texas Cotton Ginners' Association has been working, through its insurance committee, for two years to obtain this approval. Edward H. Bush, executive vice-president, advises Texas ginners as follows:

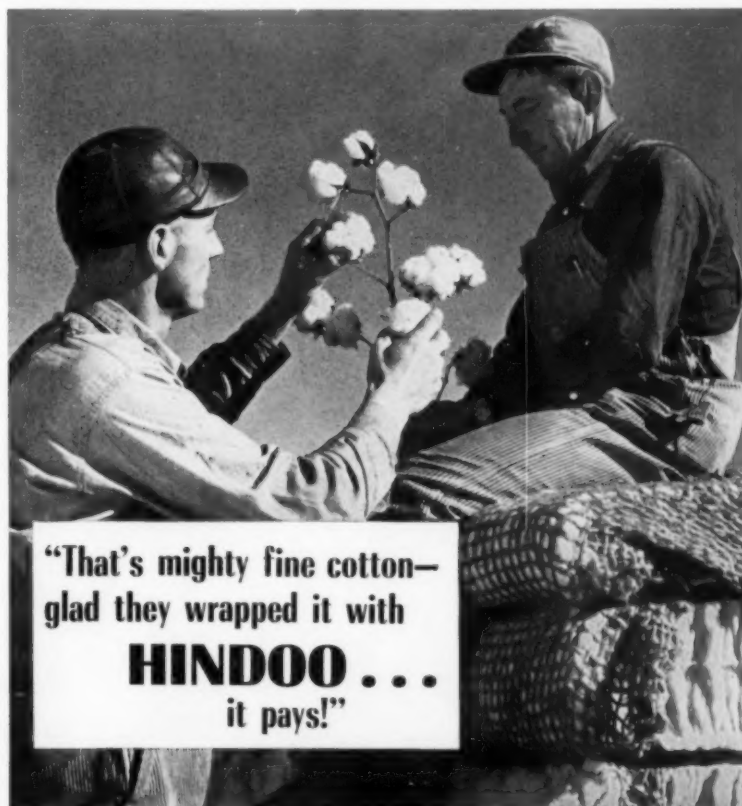
"If you have a magnet in your gin which has been installed in an approved manner, we suggest that you contact your insurance man and see if a rate adjustment is not due you. If you are thinking of installing such equipment, we suggest that you make sure that the

installation you are considering will meet the approved standards when it is installed so that you will be eligible for the 15-cent credit."

P. T. Pinckney, Retired Mill Leader, Dies

P. T. Pinckney, Memphis, retired manager of the Lake County Cotton Oil Mill, Tiptonville, Tenn., died Aug. 16. He was on a cruise of the Caribbean, and final services will be held after the ship returns to this country on Aug. 28.

He was an honorary member of the Old Guard and a past president of the Valley Oilseed Processors' Association. His son, P. T. Pinckney, Jr., lives in Memphis.



"That's mighty fine cotton—
glad they wrapped it with
HINDOO . . .
it pays!"

Bob Taylor Agricultural Photo.

Your Best Buy in Bagging

is HINDOO

2 lb.—21 lb. tare

LUDLOW MFG. & SALES CO.

Atlanta, Ga. • Stockton, Calif. • Los Angeles 58, Calif. • Memphis, Tenn.
Galveston, Tex. • Gulfport, Miss. • Indianola, Miss. • Needham Heights, Mass.

• Plans Complete for Plains Growers

PLANS are complete for the second annual meeting of Plains Cotton Growers, Aug. 29 in the Lubbock Municipal Auditorium on the Texas Tech campus.

Plains Ginners' Association will hold its annual meeting on the following day.

Principal speakers for the Plains Growers' meeting will be Congressman W. R. Poage of Waco and W. E. Reid, president, Riegel Textile Corp., New York City.

W. O. Fortenberry is president of Plains Growers and George W. Pfeifferberger is executive vice-president.

Film Shows Mill Tour

A movie of the textile mill tour sponsored by Plains Cotton Growers and Plains Ginners' Association is available for civic clubs and others in the West Texas area. Jack Creel produced the film. Civic clubs and other groups may obtain the film, free, from the Plains Cotton Growers' office in Lubbock.

Ashley Downing Dies

Ashley Downing, Raymondville, Texas, who had ginning and other interests at several towns in the Lower Rio Grande Valley, died recently.

■ JOEL HEMBREE, formerly at the University of Texas Cotton Economic Research, is research director for Otto Goedecke, Inc., Hallettsville, Texas. TONY WOLF has joined the same firm as technical assistant.

Southeastern Crushers' Set 1959 Dates

Southeastern Cottonseed Crushers' Association has selected June 14-15-16 as the dates for the 1959 convention. The meeting will be held at The Castle in the Clouds, Lookout Mountain, Tenn., according to announcement by C. M. Scales, secretary.

Japanese Import Fewer Soybeans for Oil

Soybean imports for food are being authorized by the Japanese government as previously expected, but USDA reports that only 18,000 tons of soybeans have been authorized to be imported for oil processing for export.

As allocations of foreign exchange for soybean imports are now on a global basis, an end user or trading firm granted an allocation can buy soybeans from any country with which Japan has trade relations.

The oil-processing trade—which prefers U.S. beans because of their higher oil and protein content—is concerned over the possibility that trade relations will be resumed with Communist China, and that late this fall or in early 1959 Japan may purchase 265,000 metric tons of soybeans from Communist China in exchange for steel and steel products. The trade is therefore said to be pressing for continuance of the global system during the October-March period.

Due to U.S. Crop

World Carryover Down 1,800,000 Bales

The world carryover of cotton was reduced 1,800,000 bales during the season just ended, because of the reduction in lint supplies in the U.S.

The International Cotton Advisory Committee estimates the supply of cotton in the free world at 21,300,000 bales on Aug. 1. Down 1,800,000 bales from a year ago, this is the smallest carryover since 1954.

Stocks in the U.S. dropped 2,500,000 bales, but other exporting countries increased their supplies by 700,000 bales. Importing countries showed a small reduction.

USDA estimated, in determining the level of 1958 price supports, that the 1958-59 supply of U.S. Upland cotton will be 19,893,000 bales. This included an Aug. 1 carryover of 8,440,000 bales, a crop of 11,393,000 and imports of 60,000. Domestic consumption was forecast at 7,800,000 bales and exports at 4,500,000 bales this season.

Oklahoma Cotton Exchange Sets Convention Dates

The Oklahoma State Cotton Exchange will have its 1959 Convention at Lake Texoma Lodge. The dates have been set for April 17-18. At a recent board of directors meeting it was decided to hold the meeting in April rather than in March, due to the uncertain weather conditions that often prevail in March.



The Industry's FIRST Engineered, Positive Action

“Y” VALVE by Phelps

for

- ★ Pressure Blowing Systems
- ★ Gravity Feed Systems
- ★ Vacuum Systems
- ★ Pneumatic Conveyor Systems

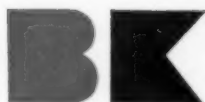
Eliminates “Choke-up”!
Positive Action to Prevent Shifting!
Write, wire or phone today!

The Phelps Positive Action “Y” valve has a spring action so arranged that the valve is held by a spring tension in both positions . . . (material flowing straight through the valve or turning into the “Y”). All joints are electric welded and lapped to assure a smooth flow of material. The valve seats behind an offset to eliminate any possibility of restriction within the “Y”.

The Phelps Positive Action “Y” valve can be furnished in all sizes with all types of connections, manual or power operated. Lever can be adapted for split-load operations. The spring action assures you a quick, positive change from one line to the other. Construction of ½”, or heavier, steel plate.

Hubert Phelps
MACHINERY COMPANY

PHONE 5-1141
1700 EAST NINTH ST. - FRANKLIN 5-1141 - LITTLE ROCK, ARK.



Blaw-Knox builds for Honeymead . . . a continuous, high vacuum deodorization unit with a daily capacity equivalent to 8% of all the soybean oil processed in the country. This modern unit features a special soaking section that guards against flavor reversion.



World's largest deodorizer upgrades 600,000 pounds of soybean oil a day

With this giant deodorizer Honeymead Products Company completes the third step of an expansion program that started in 1953. At that time Blaw-Knox designed and built a 500-ton-per-day Rotocel solvent extraction plant for this progressive company. By 1956 facilities were expanded and production climbed to a record breaking 1200-tons-per-day. Now this pace setting deodorizer makes Honeymead a leader in large scale continuous refining of soybean oil into edible products.

Such pioneering projects are typical of the over 100 fats and oils plants engineered and built by Blaw-Knox. To see how this experienced technical

know-how works for you in your own plans for new processes, plant expansion or modernization, contact our engineers.

For a concise survey of Blaw-Knox's complete engineering and construction services for this booming industry, send for Bulletin 2515. Blaw-Knox Company, Chemical Plants Division with headquarters in Pittsburgh. Branch offices in New York, Chicago, Haddon Heights, New Jersey, Birmingham, Washington, D.C. and San Francisco.

for plants of distinction . . .





from our Washington Bureau

by FRED BAILEY
WASHINGTON REPRESENTATIVE

The Cotton Gin and Oil Mill Press



• **Cotton Overpowers Politicians**—New cotton legislation rushed through Congress just ahead of adjournment is the result of cotton pressures which defied resistance. Even veteran lawmakers Cooley and Rayburn were overpowered.

All sides are agreed the bill as it stands is "it," though no one is wholly satisfied with the measure. All farm organizations and USDA would have preferred modifications—but of different kinds and for different reasons. The new bill is a compromise, the best that could be worked out.

Secretary Benson has scored a major victory. The embattled USDA boss won larger acreage (though this point wasn't contested); lower price supports; and has succeeded in virtually crippling the Farm Bloc which for so many years called all the shots on farm legislation, running rough-shod over Secretaries of Agriculture when situations demanded.

Benson's major victory was not a complete victory, however. He'd have preferred a shift in the basis for supports from 3/4-inch middling, as now, to one-inch middling—an across-the-board cut

of 385 points in price support levels. He'd have preferred abolishment of special protection for growers of 10 acres or less. And he'd have preferred a wider range of price support flexibility than the new bill provides.

Actually, legislative strategy took a complete about-face since early in the session. At the outset, it was Congress which began by offering Benson an all or nothing package . . . take the "omnibus farm bill" or do without P.L. 480, Wool Program, and School Milk extension. It was a bluff and Benson called it.

As adjournment approached and there'd still been no action to head off the pending cut in cotton acreage, Benson mounted the driver's seat. Each time Congress offered him a farm bill he rejected it, on the assumption Congress would return with a counter offer more to his liking. It was on the basis of this thinking that USDA engineered the defeat of the omnibus farm bill. And, according to plan, Congress offered a cotton-corn-rice bill—more to USDA design, but not entirely. Again, Benson took a calculated risk and lined up votes for its defeat. It

was at this point that both Cooley and Rayburn threw up their hands in disgust and announced they were calling it quits.

Afraid he'd pushed his luck too far, Benson frantically contacted farm leaders in the House, promising his support of a slightly modified version of the bill he'd just help defeat if the lawmakers would only give it a second chance. Pressures were such that Congressmen couldn't say no. The measure — an amended version of the Senate farm bill — passed by voice vote.

In a closed-door session later the same week, the Senate Agriculture Committee declined to accept the House Amendment — meaning the bill would have to go to a House-Senate conference for ironing out differences. Infuriated House leaders promptly told the Senate to accept the House amendments or forget about a cotton bill this session . . . that there'd be no House conferees appointed.

Senate Committee then conceded, announced the House amendments would be acceptable after all. This cleared the way for final action.

The new bill isn't drastically different from earlier versions we've reported to you. Some changes make an up-dating worthwhile, however. Since our last report, also, USDA cotton economists have given long thought to what impact the bill may have. Here's a rundown, year by year:

• **For 1959**—National acreage allotment would be set at 16 million acres plus an allowance for small growers. That's roughly eight percent less than the current season allotment of 17,000,000 acres, but considerable larger than the 14 million acres which Benson says would have been mandatory for 1959

NEW! IMPROVED!

**CEN-TENNIAL 6-CYLINDER GRID
TYPE CLEANER WITH STICK AND
GREEN LEAF EXTRACTOR.**



Easy to install in the
Field. Heavy Duty
Steel Construction.
Permanently sealed
Ball Bearings.

Do you need more hull, stick and green
leaf extraction?

This problem can be economically solved
by adding a Cen-Tennial Stick and Green
Leaf Extractor to your present Cleaner,
regardless of make.

Write
Today
for
Literature

Cen-Tennial
COTTON GIN CO.
DALLAS, TEXAS • COLUMBUS, GA. • MEMPHIS, TENN.

under old law. Price support on the basis of $\frac{3}{8}$ -inch middling is called for in the new bill.

Each grower would be permitted a choice of two production and price support plans, labeled "A" & "B." Under plan "A" the grower would be required to comply with his allotment . . . about eight percent less than this year, same reduction as for the national allotment. In return, CCC would purchase all such cotton at 80 percent of parity (about 30.84 cents per pound, basis $\frac{3}{8}$ -inch, which compares with the current loan rate of 31.23 cents per pound). Should parity continue to climb at the rate of recent years, however, CCC purchase price might be nearer 32 cents per pound.

Growers who choose plan "B" could plant up to 40 percent in excess of their allotments (note that 40 percent more than their 1959 allotment would be approximately 25 percent more than their 1958 allotment). CCC loans would be available at 15 parity points under the plan "A" support rate—65 percent of parity if the plan "A" rate is set at the 80 percent minimum allowed. Sixty-five percent of parity, on the basis of present parity, would be 25.06 cents per pound.

There'd be little use made of the loan, economists here reason, since USDA would be barred from reselling its purchases under plan "A" at less than 110 percent of the plan "B" support rate. This would tend to establish a market price near 71.5 percent of parity—27.56 cents per pound.

• **For 1960** — Same program would be in effect except that CCC purchase price under plan "A" would drop to 75 percent of parity (about 28.88 cents per pound) and under plan "B" the loan rate would drop to 60 percent of parity (about 22.53 cents per pound). CCC sell-back price for cotton purchased under plan "A" would be 66 percent of parity (24.78 cents per pound).

• **For 1961**—All growers would be under one program. National allotment, it's now estimated, would be at 16 million acres. And, unlike 1959 and 1960, this would be the total acreage that could be planted. Price support minimum would be 70 percent of parity. Any cotton acquired by USDA under the loan program could not be sold on the market at less than 115 percent of the support price.

• **For 1962 and Later Years**—the same program as for 1961 with the single exception that minimum support would drop to 65 percent of parity.

Mary Lou Chapman Joins Supima Association

Appointment of Mary Lou Chapman as fashion coordinator for the Supima Association of America is announced by Mary Alice Stewart, sales promotion manager of the extra long staple cotton organization.

Miss Chapman has been associated with Ted Worner & Associates as a fashion publicist. Prior to that she served as junior merchandising editor of Vogue. For four years she was a special public relations representative of the automotive styling department of the Chrysler Corp. in Detroit.

Miss Chapman succeeds Mrs. Lea Nixon as Supima's fashion coordinator.

• Leaders of Soybean Industry Convene

OPPORTUNITIES for world trade in soybeans and their products and domestic problems of the soybean industry were reviewed Aug. 18-20 at Hotel Fort Des Moines, Des Moines, Iowa. National Soybean Processors' Association, American Soybean Association and the National Soybean Crop Improvement Advisory Board held their annual meetings on these dates.

Iowa processors were hosts at a reception on Sunday evening, Aug. 17, before the formal opening of the business session of National Processors' Association on Monday.

Processors' morning business was followed by an afternoon meeting at which

speakers included Ray E. Rowland, president, Ralston Purina Co., St. Louis; Howard L. Roach, president, Soybean Council of America, Plainfield, Iowa; and James Hilton, president, Iowa State College, Ames.

A reception and dinner were held that evening with Dr. Max Myers, administrator, Foreign Agricultural Service, USDA, as guest speaker.

Speakers for the annual meeting of the American Soybean Association included: Dr. T. L. Hieronymous, University of Illinois; J. R. Hartley, University of Indiana; Shizuka Hayashi, Japanese-American Soybean Institute; Dr. Myers; Dr. Edward James, Soybean Council of America; Dr. A. K. Smith, USDA Northern Utilization Research Division; Dr. Joseph Spears, USDA; Dr. G. L. Jordan, University of Illinois; and George A. Parks, Jr., USDA.



DELTAPINE
high quality cottons
bred for low-cost
production . . .

EXCELLENT fiber quality and lint yields go right along with low cost mechanized production when you plant Deltapine cottons. Deltapine 15, D&PL-Fox 4 and Deltapine Smooth Leaf have been "brought up" to meet all requirements of the machine age. Deltapine breeding has, also, held steadfastly to the qualities that make Deltapine cottons the most profitable you can grow. Reserve your supply of Deltapine Smooth Leaf and Breeder's Registered Deltapine 15 and D&PL-Fox 4 Seed now.

DELTA & PINE LAND CO.

SCOTT, MISSISSIPPI • BROWNSVILLE, TEXAS

Famous Varieties



**Breeder's Registered
DELTAPINE 15**

This variety is being grown by more satisfied farmers throughout a wider area than any other variety.

**Breeder's Registered
D&PL-FOX 4**

Our improved variety which gives higher yields, is early maturing and has good staple qualities.

DELTAPINE SMOOTH LEAF

A recent addition to the Deltapine family of fine cottons. Machine harvests with less trash, gins cleaner, gives one-fourth to one full grade better cotton with yields as high or higher than its famous parent variety, Deltapine 15.



BREEDERS OF THE BELT'S BEST COTTONS

DELTAPINE COTTONS
Breeder's REGISTERED Seed



PARTICIPANTS in the opening session of the Mechanization Conference, shown here are, left to right, Cecil H. Colletterte, general chairman of the Conference; C. B. Ray, Valley Farm Bureau, who gave the welcoming address; George G. Chance, chairman of the board, National Cotton Council; Dr. C. R. Sayre, president, Delta and Pine Land Co.; J. H. West, Texas Farm Bureau president, who presided at the session, and George A. Kelly II, chairman of executive committee, Farm Equipment Institute.

Summary-Proceedings:

Twelfth Annual Beltwide Cotton Mechanization Conference

RESEARCH RESULTS, management decisions and practical farm mechanization, as well as soil conditioning, disease control and fiber quality measurement, were among the topics stressed at the 1958 Beltwide Cotton Mechanization Conference, which was held Aug. 12-14 in Brownsville, Texas.

The National Cotton Council sponsors this annual meeting, in cooperation with USDA, land-grant colleges in cotton states, the farm equipment industry, vocational agriculture, farm organizations and others.

The following is the summary-proceedings for this twelfth annual conference, which The Cotton Gin and Oil Mill Press is pleased to publish because of its increasing importance to the entire cotton industry.

Opening Statement

by CECIL H. COLLERETTE

General Chairman of Conference and Chairman, Production and Marketing Committee, National Cotton Council, Casa Grande, Ariz.

The first Mechanization Conference was held this very same week in August, 1947, at Stoneville, Miss. The fact that the dates do coincide, tempts me to look back a little.

The first temptation is to ask how many here today attended that first conference at Stoneville. But there have been lots of changes in personnel since then.

My second temptation is to ask you to recall the sites of the conferences that followed. Many of you will remember the second one in Lubbock. Then came Bennettsville, S.C., and Stoneville again. We moved then to Chickasha, Okla.; the San Joaquin Valley of California; Gadsden, Ala.; Little Rock; Texas A&M; Atlanta; and, last year, Shreveport. So these conferences have pretty well traversed the Cotton Belt.

My third temptation is to ask what has been accomplished at these conferences. Of course, we have to recognize that the conference has been just one of several factors in the mechanization progress that has been made, and that its role can't be measured easily. But I think you will agree the years since

1947 have really been full of mechanization progress and that the conferences played an important role.

As an indication of that progress:

- The number of tractors on cotton farms has more than doubled.
- Multi-row and multi-operation equipment have found widespread usage.
- Chemical weed control and flaming are coming into their own.
- And, mechanical harvesters have increased from almost none to the point where approximately one-third of the entire crop is being harvested by them.

Although we're interested in the number of tractors and use of related equipment, our primary interest penetrates much deeper than numbers. It looks into the contribution these machines and equipment make toward lowering the cost of producing and harvesting quality cotton; toward increasing income of those who produce and handle this commodity; toward strengthening cotton's competitive position.

We know that we have made a lot of progress in these areas since Stoneville. And if these conferences have speeded up this progress—if they have helped give it a sound sense of direction—then

they have served a very useful purpose indeed.

New gains, as you already know, must come through research and its application. A considerable portion of this conference program will be devoted to a review and an analysis of research results in mechanization and fiber quality—and how to apply those results. In fact, the Engineers' Workshop this morning was devoted almost exclusively to this.

Another major portion of the program is given to a searching look at the needs and challenges ahead, and to the increasingly important role of the farm manager in keeping costs down and quality up.

As this program unfolds, I think the opportunities for teamwork in moving faster toward our objectives will also unfold . . . opportunities for teamwork not only among the cotton and farm equipment industries and publicly-supported research and educational institutions, but also among all groups that have a stake in—and can make a contribution to—this matter of speeding up progress toward lower costs and higher quality.

◆ ◆

Weighing Cotton's Future

by GEORGE G. CHANCE

Chairman, Board of Directors, National Cotton Council, Bryan, Texas.

My assignment is to balance the good against the bad, the favorable against the unfavorable—then to look at the scales and see whether they are tilted toward a bigger or a smaller future for our industry.

What in the world do you do when you have a great big, heavy factor—one that's capable of shifting the balance sharply in either direction—and you simply don't know which side of the scales to put it on? And the big, uncertain factor I refer to, of course, is the matter of government policy on the price, production and supply of U.S. cotton.

• **Our Objectives** — One of our legislative objectives has been a long-range program aimed at moving as rapidly as possible toward competitive pricing for U.S. cotton—and a one-price system for U.S. cotton. Another objective has been sufficient cotton acreage to produce adequate supplies of all qualities of U.S. cotton needed to meet the requirements of all of our customers, at home and abroad.

Throughout the fight for corrective legislation, we have constantly emphasized that competitive pricing and adequate supply are essential conditions for expanding cotton's markets. We have repeatedly pointed out that market expansion is the only answer to continual cutbacks in acreage which shrink the cotton grower's volume, raise his unit costs, and bite deeply into his net income.

All our efforts to win or hold customers are based on the assumption that we will be able to supply them with U.S. cotton of the qualities they desire, in the amounts they desire, and at the time they desire it.

For example, how can our customers have confidence in any policy aimed at making U.S. cotton competitive in price

—if we allow periodic shortages to develop and send our price shooting upward?

How can we build our markets through quality improvement—if our customers can't be sure of a continuous supply of the specific qualities of U.S. cotton that they need and want?

How can we have effective programs of sales promotion—if we can't adequately supply the markets that we seek to promote?

Obviously, our best efforts to build markets can be badly upset if we move into a situation where the supply of U.S. cotton is inadequate, either in the range of qualities available, or the total quantity available, or both.

You can imagine what would happen if a supply shortage sent the price of U.S. cotton rushing upward. Our customers throughout the world would be badly discouraged. Synthetics would find themselves in an immensely stronger competitive position. There would be a big new incentive for the expansion of competitive cotton production overseas.

Now, there's one central fact about our current market situation that I would like to bring to your attention. During the period of the 1950's, we've had some big ups and downs in production. But the total consumption of U.S. cotton hasn't varied nearly so much; on the whole, it has held fairly close to an average of 13 million bales—and we have evidence which indicates that the actual use-up of our cotton is running at a higher level than that today.

So, from the standpoint of total consumption, we've actually been doing fairly well when you consider the handicap we've had in price, and the fact that our synthetic competitors have been greatly outspending us in research and promotion. We've been doing better than growers might think when they look at their sharply reduced acreage allotments. But let me hasten to add that our present level of consumption is by no means adequate for an industry which desperately needs—an industry which must have—a greatly expanded market in the years ahead.

• **Future Markets** — In examining our prospects for such a market, let's look at domestic mill consumption, which provides the biggest and most dependable outlet for U.S. cotton. Immediately, we come face-to-face with the fact that domestic mill consumption, on which we rely so heavily, has dropped by well over a million bales in the last two years.

This is a highly disturbing fact. Some of the loss is attributable to gains by cotton's competitors, some to a work-down of inventories, and some to the general business recession.

In short, the abrupt two-year decline in the domestic consumption is serious—but not quite so serious as it might seem at first glance. When we get a rebuilding of inventories, plus recovery from the general business recession, we should see our domestic consumption bounce back from part of its recent decline.

There's one other point I would like to mention in connection with our domestic market—a very encouraging point. This has to do with an apparent reversal of a trend in the clothing purchases of the average American. As a normal thing in this country, a person who gets an increase in real income would tend to use part of it to increase his consumption of clothing fiber. But

during the amazing period of 1946 through 1954, when the average American's income went up very substantially, his consumption of clothing fiber did just the opposite of what you would logically expect. Instead of going up, it went down. Over the last three years, however, the evidence indicates that this trend may have changed. It now seems that clothing purchases may once again be following the upward trend in per capita spending. If this is true, and if our population and standard of living continue their rapid growth, the domestic market for cotton will be bolstered by a powerful influence which has been lacking for a long time.

• **Export Market** — Let's turn now to our situation and prospects in the export market. And here, in looking at the record of the last two years, we find some impressive and encouraging figures—plus dramatic evidence of what a competitive price can do for U.S. cotton. After watching our exports shrink to the intolerably low level of 2,200,000 bales in 1955-56, we saw them jump to 7,600,000 in 1956-57. A good part of that big jump was accounted for by a rebuilding of low cotton inventories abroad. But in the 1957-58 season just ended, we exported around 5,700,000 bales, and it now appears that only a relatively small portion of this represented further inventory accumulation. Because of the foreign textile recession and other factors, our exports during the current season could drop to five million bales or perhaps less. But this would not be likely to reflect a weakening of our competitive strength in relation to foreign-produced cotton and rayon. We believe there is an excellent chance that our competitive position will remain strong this season—and perhaps grow even stronger across the years ahead.

Now, how do we explain our resurgence in the export market—after seeing ourselves right on the verge of being pushed out of it entirely? A big part of the explanation centers around the fact that U.S. cotton, through a special government program, was made available to our overseas customers at prices that were competitive with foreign-produced rayon and cotton. This has helped immeasurably in strengthening our market position and outlook overseas.

Most important of all for the future, it has tended to discourage the expansion of competitive production abroad. Until recently, foreign producers of cotton and rayon had found their operations so profitable that they put through tremendous expansions. They expanded so fast that they were more than able to handle all of the large expansion in foreign consumption of cellulose fibers; they also were able to supply a progressively larger share of the volume that had once been accounted for by U.S. cotton exports.

Can the American grower, on his own, meet foreign price competition? In seeking the answer to this question, we first have to ask ourselves if foreign cotton producers have any basic advantage over U.S. growers in competing on price. And they do indeed have an advantage—the advantage of extremely low-cost labor in producing a crop with traditionally high labor requirements. But this advantage, though great, is by no means insuperable. Certainly it should not seem insuperable to those of us who are gathered here for this Mechaniza-

tion Conference. For mechanization, more than anything else, stands as the symbol of what we must do to overcome the foreign cotton grower's advantage of low-cost labor.

We know that farm wages aren't likely to trend downward in this country. In all probability, they will trend upward. Our answer is not to be found in lower wages to labor, but in drastically lower requirements for labor. This is our challenge and we already have dramatic proof that it can be met.

Our economists tell us that mechanization, coupled with other developments growing out of science and technology, has cut out the labor requirements for producing a bale of cotton by more than half since before World War II. They also tell us that we now have the po-

tential—in current know-how and equipment already available—to cut these labor requirements by half again.

When we think of this potential—and the new laborsaving potential that is sure to be opened up by research—it is obvious that the technological advantage is ours. Whether we will be able to capitalize on this advantage depends in a large way, of course, on whether we win legislation which will permit us to move toward a larger market and a larger acreage for cotton growers. But if we do have the freedom to exploit our technological advantage fully enough, we can get our costs down; we can meet foreign price competition and still keep cotton a profitable crop for American growers.

a true sense of urgency in each facet of cotton research to get in step with the constantly changing setting under which cotton must compete.

♦ **The Changing Functions of the Farm** —In terms of the total of services and functions involved in providing the consumer with a textile product, those services furnished on the farm are getting both narrower and further removed from the retail counter.

By getting narrower, I mean that the actual production of cotton is drifting more and more into a process—one which depends to an increasing extent on taking the materials and services supplied by nonfarm industry and converting them, in turn, into an industrial raw material. When you stop to think about the things we do to land in growing a crop of cotton—the nutrients we add, the careful control of water, fertilizer, insecticides, and the like—more and more cotton farms take on the nature of a site for a manufacturing facility. Farms now have fewer of those attributes which once led economists to designate land as one of the primary factors of agricultural production.

According to my calculations, the bill for materials and services used in producing a bale of cotton, apart from land, represents more than two-thirds of the selling price of cotton. This throws in greatly increased risk elements for the cotton grower using modern methods. In producing areas with wide variations in weather and insect infestations the risk element involved in efforts to tool up for "precision farming" could bankrupt a grower with two successive bad crop years. Ways must be found through research to offset changes in conditions as the growing season unfolds.

♦ **Mechanization Research** — It seems that mechanization must occupy a peculiarly important place in our research plans and aspirations. Experience has clearly demonstrated that we are dependent on machines to open the way for greater precision, timeliness, flexibility—generally tighter control over production and harvesting operations. Surely, no one disagrees with the need for still more progress.

However, when we try to survey our research needs and opportunities with a view to meeting ever tightening product specifications, the matter of performing operations with increased proficiency becomes merely an intermediate objective. My point is that we must ask, "How well do the individual operations, even if performed most proficiently, contribute to that larger objective that faces us in the market place?"

♦ **Competitive Price and Research** — Legislation can only remove the institutional roadblocks to our making cotton competitive.

Cotton farmers cannot immediately absorb the current 7.5 to 8.5 cents differential between the domestic price and the world price.

Cotton production costs must be reduced. With the "built-in" inflationary features of our economy it is hardly conceivable that the asking prices for intricate pieces of farm equipment will trend any direction but upward. Success in cost reductions must lie in the direction of simplification of production practices and machines, plus gains in productivity per worker.

Let's look at the need for field work

Mechanization Research—Its Needs and Challenges

by DR. C. R. SAYRE

President, Delta and Pine Land Co.,
Scott, Miss.

The cotton industry's existence as a major source of economic wealth is threatened as never before. Added time has been bought for cotton growers through effective cotton production at home and abroad, through research achievements in cotton genetics and breeding, by gains from mechanical and chemical production combinations, improvements in harvesters, improvements in gins, and chemical modifications of cotton fibers. This added time is running out. Cotton urgently needs the full stimuli of new "break-throughs" in research areas.

The thing that seems to be lacking is a broader concept properly relating research to a strategy for reaching defined objectives vital to our industry's survival. Let me put it in the form of a proposition like this—Our needs and challenges in mechanization research grow out of the compulsion to meet, at competitive prices, increasingly exacting specifications as outlined by our raw cotton customers.

If we expect to stay in business, we must recognize that we are competing in a market in which our customers are compelled to be increasingly intolerant of variations in the raw material they are using. Sure, price per pound is of critical importance in deciding who gets the business—but, price per pound of what?

♦ **Comparison of Mill Specifications — 1947-1957** — All of us have witnessed the shifting emphasis in cotton marketing. Grade, staple, and character were the only considerations when these conferences started in 1947. Fiber measurements were only research tools.

Currently, both at home and abroad, exacting micronaire specifications are common requirements. Stiff penalty provisions are tied into the contracts. Many mill buyers will not take cotton if they can detect a harsh feel, which they associate with excess heat at the gin. Some mill buyers will not bid on cotton if they know it has been through a saw-type lint cleaner.

♦ **Precision Processing**—Mill have been, are now, and seem destined to continue

for some time under the pressure of low earnings margins. Their response to the pressure has been, roughly, a parallel to what's been happening on cotton farms—they have mechanized and modernized their practices. They have installed atmospheric controls, stepped-up spindle and front roll speeds, increased the size of yarn, roving, and sliver packages, and cut their labor to a minimum. They are approaching automation as rapidly as they can—and this, inevitably, means less and less tolerance of variations in the raw material being processed. A stoppage, which was once looked upon as more or less commonplace, borders on a disaster when one's cost structure is geared to operating at full equipment capacity and with a minimum labor force.

There's a closely related facet of this cost-minimizing technology. It is inherent in our structure of grade and staple price differences that mills try to get by with the least costly combinations of qualities. That subjects cotton to a relentless pressure for the top limit of its performance ability. The occasional lot that's even slightly sub-standard becomes most conspicuous under these circumstances.

In addition, we have to recognize that at the end-product level the textile business is highly competitive—the consumer is in a position to enforce tighter and tighter specifications in product quality. The trend toward finer goods and more complicated finishes will continue. This, too, portends tighter raw material specifications. The finer the goods, the lighter the color shadings, the more obvious a flaw becomes. And a flaw, stemming from inability to control the raw material, puts that material at a critical disadvantage if the customer has an alternative.

Our customers, of course, have an alternative. True, cotton still has some superior qualities over the man-made fibers. But, uniformity and evenness are not among them. In my judgment, those advantages which cotton now holds will be steadily narrowed unless we bestir ourselves with considerably more vigor than we have up to now. We must adopt

and machine simplification. We do a lot of "earth moving" in cotton production. A fairly typical sequence of production operations in the Delta involves about 16 trips with tractor-mounted equipment: sub-soiling, two passes with a tandem disk harrow, two with middlebushers, one with a planter if we are lucky, and 10 cultivations.

For an average acre of cotton at lay-by we will have manipulated the equivalent of 3,700 cubic yards of dirt, roughly 4,600 tons of material. In developing the horsepower required to do this work, the average weight on each rear tractor wheel will range from 2,000 to as much as 3,800 pounds, depending on the particular operation. About three-fourths of this earth moving is done in the process of fitting the land and planting it.

The pneumatic roller, which the construction industry uses so effectively for compacting road beds, earth fills, and the like, carries about 3,600 pounds on each rubber-tired wheel. As I understand it, as few as six passes with this machine will bring three inches of loose dirt up to the density required for a highway road bed.

Did you ever stop to think what we might be doing to a cotton field with all this tractor traffic? In each 10 rows, with the sequence of operations I mentioned a moment ago, the rear tractor wheels would run 16 times in three middles, 12 times in two middles, five times in three middles, and one time in two middles.

Now, if all this manipulation of soil is for the purpose of loosening it and otherwise preparing a medium for the cotton plant to grow in, what have we accomplished if in the process we treat it as if we were building a road bed?

I think we have here an example of the kind of problem which goes considerably beyond mechanization, as such, though certainly a problem which heavily involves mechanization. Doesn't this whole matter of fitting land rest on research which seeks to get us on more intimate terms with what's actually required in providing and maintaining an optimum medium for the growth, fruiting, and fiber development of the cotton plant itself?

Of course, much of the tractor traffic arises from the need for controlling weeds. Here, too, logic seems to suggest that a really workable answer can come only through the inter-play of research in mechanization plus plant physiology, biochemistry, and the like aimed at giving us the means for controlling weeds before the cotton plant emerges, rather than afterward.

• **Vast Opportunities Ahead** — The fact that recognizable challenges of unmeasured proportions exist—particularly in raw cotton—means there are vast opportunities ahead.

I know, for example, several cotton growers who spent more than eight cents per pound of lint produced for insect control on their 1958 crops. In sharp contrast, look at the experience in which the Mediterranean Fruit Fly was wiped out, saving the Florida citrus industry.

Further, we are still using about 95 hours of hand labor to produce the average bale of cotton in the United States. Perhaps it can be done with 20 hours or less in the future.

On the mechanization front I shall list five main—needs, challenges, opportunities—for big research gains.

These are:

1. Lower unit costs of production.
2. Simplification of production practices and machines.
3. Larger capacity machines to provide higher productivity per worker.
4. Greatly improved combinations of chemicals and the machines which apply them, and
5. Tailoring plants, methods, and machines to produce cottons, as raw materials, to meet the increasingly exacting specifications at the door of the spinning mill.

Much of the above will have to be done on a research team basis for rapid progress. Let us recognize the urgency of our needs for strategic "break-throughs" from research in cotton's race for survival. The challenges are worthy of the best among creative minds. The opportunities should excite and enthuse the best among development pioneers. Represented are scientific frontiers offering large profit potentials.

The Gears Must Mesh

by GEORGE A. KELLY II

Chairman, Executive Committee,
Farm Equipment Institute;
President, G. A. Kelly Plow Co.,
Longview, Texas.

Let's review for a moment the great complexities of this industry. The production of quality cotton is but an embryo of this great industry. Yet, this all-important embryo is the organism or one of the basic power gears which make this great industry possible.

In addition there are such gears as might relate to ginning and processing of the cotton itself, research for marketing, product promotion, export programming, trade patterns, international relations—to name only a few. And within each of these categories there are gears within gears. If you think of the many facets, the human relations and similar aspects of this great cotton industry, you have a plant with more parts and more gears than the most modern Univac or most complicated inter-planetary missile.

And, for this industry to be successful requires that all of these gears function properly.

I doubt if any industry has ever done a better job of ferreting out its problems, facing them squarely, and taking positive action to find the answers. Positive action requires positive thinking, power and drive—possible only through the many facets of this cotton industry gearing its operations to meet their individual responsibilities.

I was encouraged by the report released by the Council a year or so ago, "Price and the Future of U.S. Cotton." The authors of this study placed great emphasis on the great need for research and educational programs to lower production costs and to improve cotton quality so that cotton might find new markets of better returns than any yet experienced by cotton.

I believe too many have been selling the future of King Cotton short merely because certain markets have been taken over by rayons, nylons, and other new synthetics.

This business of selling, whether it be cotton or farm equipment, is an every-

day job—it is an important gear in this industry—day in and day out.

Looking more specifically to the proper meshing of gears within gears of economic production of cotton, the farm equipment industry recognizes that the challenge of farm mechanization is still with us, even though great strides have been made, in recent years.

Since 1945, tractor power in the Southeastern and Delta States increased some 400 percent as against only a 100 percent increase for the country as an average.

• **Research and Farm Mechanization** — Each year, the farm equipment industry is developing and making available better and more efficient equipment for cotton production. In great part this is made possible through the splendid co-operative relations our industry has with public service research workers in keeping abreast with the changing needs in cultural practices, weed control, defoliation, disease control and harvesting.

It is difficult to break down research investments when applied research may benefit a number of crops. Annually, however, our industry is devoting many millions of dollars in research to the development of better equipment to meet problems that exist in cotton production.

There is still considerable question as to the most efficient land preparation for cotton production and remedies of soil compaction. There are the questions of land forming, forms and placement of fertilizer, and the impact of supplemental irrigation—to name a few more.

• **Farm Machinery Costs**—Another gear of farm mechanization pertains to the ability of our industry to produce quality farm equipment at the lowest possible cost to the farmer. Our manufacturers are burdened with the same problem of a number of other industries in trying to hold down costs in the face of higher labor and material costs. I'm proud of the record our industry has maintained. While farm machinery manufacturers have been producing a better quality product, prices have been held to a minimum so that new farm machinery—which provides the greatest opportunity for lower production costs—is available to the greatest number of farmers. One of the best public records of what has happened in costs is the Bureau of Labor Statistics Wholesale Price Index.

Taking 1947-49 as a base, the last BLS price index of agricultural machinery and equipment, including tractors, show that wholesale prices of farm equipment have risen 38.3 percent. Steel, rubber, wages and other items which go into modern farm equipment have advanced far more during the same period. Finished steel prices, the type used most in our industry, advanced 81.6 percent. Tractor and implement tires, 55.6 percent. Hourly labor costs increased 64 percent, and this does not include many of the fringe benefits paid by the manufacturer.

But regardless of this, the most important aspect of this question is "Does modern farm equipment help a farmer to lower his production costs?" We know, as well as you, that it does. The problem is how to get all farmers to see this and to take advantage of modern cost-saving farm equipment. This is a gear which needs an extra dose of lubrication—as does banking or farmer credit facilities.

As new mechanical approaches are

developed, they will become new gears in this overall machinery of the cotton industry. How well all of us do our job determines how well the gears will mesh and a prosperous industry develops.

Management's Command Decisions

by DR. T. R. TIMM

Head, Department of Agricultural Economics and Sociology, Texas A&M College, College Station

The American cotton farmer faces a tremendous challenge of both opportunity and responsibility in the world today. In view of this challenge, I believe that three levels of basic decisions should continuously and simultaneously command his attention. These are: the decisions associated first with the fact that he is an American citizen, secondly that he is in the business of farming, and thirdly, that he produces cotton.

• **As An American Citizen** — First, to the point that profits of the cotton producer are affected to an important degree by decisions he and others make as citizens, quite separate and apart from the fact that he is classified as a farmer or as a producer of a particular crop. These decisions largely come from the political arena. So it is in this arena that they have to be worked out.

Here are a few of the national decisions involved: Should the Federal government spend more or less on Federal aids of one type or another? Should the government undertake deficit financing, set minimum wage laws and at what level, extend social security coverage, and manipulate higher or lower interest rates?

Other important citizen decisions deal with taxes which are levied against property, sales and income and are managed within the political process.

Since these public policies and programs affect the price level, the factors of production; in fact the general welfare of the people who produce goods and who comprise the market for these goods, they must effect importantly the profits of cotton farmers and the cotton industry.

• **As An American Farmer**—The proposition that dollar returns to cotton producers are affected greatly by decisions associated with the fact that they are in the business of farming, regardless of their cropping system. This is true because the cotton producer faces and is affected by many characteristics that apply to farming generally. A few examples:

1. The supply of and demand for farm products generally, is relatively inelastic.
2. Fixed annual costs make up an extremely large share of the total cost of doing business.
3. Family commercial units, rather than corporations, produce the major proportion of the product.
4. The share of the consumer's dollar received is relatively small.
5. Annual production is subject to greater natural risks than in most other industries.
6. Family labor is still an important part of the business.

7. Production is undergoing a technical revolution.

These basic characteristics result primarily from the framework of natural, biological, economic and political forces that produce in farming, behavior patterns quite different from those of other industries. In fact, we should remind ourselves again and again that since there are sound reasons for these behavior patterns, remedies good for labor and other businesses may not necessarily be good for farmers and farming.

Over time, these patterns in farming produce gluts and shortages, over and under capitalization, larger as well as smaller units, more diversified yet more specialized farms. And from these trends arise basic problems requiring decisions to fit the business of farming.

Some of the important decisions facing farmers, across the board, and of significance to cotton farmers, follow: Should government policies related to support prices and acreage controls be changed? If so, in what way?

There is no way for cotton producers to isolate themselves from the behavior problems that affect farmers generally. In fact, I suggest that they give more attention to problems which farmers generally and other commodity groups face.

• **As An American Cotton Producer** — The third level of decisions pertains to those decisions associated with the fact that a farmer has chosen to try to make a living growing cotton; at least cotton is an integral part of his cropping system. At this level, management is involved in decisions concerned with the growing, marketing and consumption of cotton.

Regarding this crop, industry leaders here are well acquainted with the kinds of decisions management must make. But sometimes we underestimate the complexity of the considerations relevant to such decisions; how difficult at times such decisions may be.

Let's take the number one on-the-farm-cotton decision. Consistent with good management practices, what combination of price and production will return the highest profit for a given farm, as well as for the cotton industry, over time?

In trying to answer this question intelligently, the cotton farmer has to consider several elusive factors, and likely find he has only limited information on which to base his answer. In my judgment, there are four fundamental principles at stake; principles which will have to be given more weight in the future, if the highest profit combination is approximated.

First: The old standby measurement of physical efficiency, such as production per acre, may have to be relied on less and the measure of economic efficiency given higher priority as a measure of success. The reason is that as farmers drive toward greater efficiency the highest profit may be reached prior to attaining the greatest physical yield per acre.

On both undeveloped and inefficient farms, when inputs such as fertilizer are added, the increase in production per acre is usually accompanied by an increase in net profit. But as practices are intensified a point is reached where the added practice is unprofitable. I imagine a good many of the highly commercialized and specialized farms are producing now at a level close to

• Brownsville Holds Cotton Carnival

BROWNSVILLE, Texas, held its third annual Cotton Carnival Aug. 13-16.

The event coincided with the Beltwide Cotton Mechanization Conference in the Lower Rio Grande Valley, under sponsorship of the National Cotton Council and cooperating organizations. (See summary of Conference elsewhere in this issue.)

Ginners, other cotton interests, merchants and others cooperated in the Carnival.

Bill Foreman, manager of public relations for the National Cotton Council, showed the film, "Cotton—Nature's Wonder Fiber," at a joint luncheon of all Brownsville service clubs and those attending the Mechanization Conference on Aug. 13.

Other highlights of the Carnival included a parade, coronation ball, beauty contest and sales of cotton products by merchants.

Executive committee for the Cotton Carnival consisted of Sam Perl, L. R. Nance, Howard Hill, Stanley Gates, Joe Calapa, Robert Aziz, Tony Spencer, Marvin Brown, M. M. Jones and Hal Roach.

the highest profit point and, therefore, operators must check carefully the additional cost before trying to squeeze out higher yields by adding more inputs.

Second: Successful innovations always produce good profits for early users. But, depending upon the circumstances, they may produce smaller profits if adopted quickly throughout farming. The reason is fairly clear cut. The early user of the innovation lowers his cost per unit of product, but still sells at the same price. The little extra production he puts on the total market is insignificant. Thus, he increases his net returns.

But if there is rapid adoption of the innovation it is almost certain that considerably more of the product will hit the market soon. With a relatively inelastic demand for most farm products this may mean a sizeable decrease in price. Such a conclusion, of course, assumes no fixed price supports and no big spurt in the demand for the product. On the other hand, if a goodly number of farmers, during the interim period, sell out to other farmers, per farm income likely will remain at a good level.

Consequently, unless favorable adjustments in numbers of producing units and in supply and demand of the product do occur, many late users of the innovation may end up in a cost-price squeeze. But they will face a more serious squeeze if they don't use the innovation.

Third: Industry-wide adjustments may or may not coincide with the kinds of adjustments needed on an individual cotton farm. Under a particular cost-price relationship the industry as a whole may find it profitable to contract. But this doesn't necessarily hold true for many farmers who may be caught in the industry-wide adjustment and hurt severely.

For a given farmer operating at or near the most profitable point, a decrease in his cotton production would mean a narrowing of the margin be-

tween total cost and total revenue; thus lowering his profits.

The fourth principle has to do with economy of scale. Vertical integration of production, processing and marketing functions has received considerable attention in recent months. It will receive more attention in the months ahead. Several important decisions are being pondered by cotton producers now. Should and can the annual cotton crop be fitted into a vertically integrated system? Will technology, a force in itself, force some such integration?

• **Conclusion** — This is a new day in cotton farming and in a very real sense, a new type of cotton farm is being born. Many of the present cotton varieties are new. So is much of the equipment, the insecticides, and the fertilizers. Even some of the insects are new. Perhaps more important, the attitude and outlook of many of the people in the cotton industry is relatively new.

This "new cotton farmer," I am confident, will measure up admirably to the decisions that command his attention.



Mechanizing My Farm

by FRANK SCHUSTER

Producer, San Juan, Texas

It is difficult for me to say with much conviction whether the growth in size of my farm operation has been the result of mechanization or the cause of it. But I can say with all honesty that

many aspects of mechanization has been made possible through full utilization of the land by fitting cotton, other row crops and vegetables together. That is to say that if I planted only my 400 acre cotton allotment and no vegetables or other row crops at all, it would be impossible to justify many of the machines I now find profitable.

Frequently we are asked *why mechanize?* To really answer the question why mechanize, first let's set some sort of goal. In simplest terms I would suggest that the real goal of cotton mechanization is to produce the greatest number of pounds of quality cotton per acre at the lowest cost per pound. Keeping that in mind it is obvious that we have not yet found the answer. Mechanization therefore, not being a fixed item, has come and will continue to come by degrees. To be sure there have been major breakthroughs but by and large it is a creeping thing. Too often we are not aware of its great progress until we look back a few years.

Let's take a look at the equipment I use today. First there is the four-row middlebuster with fertilizer attachment, four-row variable speed planter with fumicide applicator, and six-row rotary hoe. The next item is a two-row middlebuster and planter with a four-row cultivator attachment, weeder bars and ammonia applicator with tanks. And of course there is a 10-foot disk harrow as well as a spray rig which can also pinch hit as a defoliator and finally the indispensable stalk shredder and the crawler-type tractor with subsoiler.

The total cost of the equipment when new is about \$27,000. While that figure

may seem high the above equipment is nevertheless indispensable to my type of operation.

My row crop and vegetable enterprises justify a lot of mechanization for cotton. Here is what I mean by that. I have another \$30,000 tied up in land leveling equipment, a rotavator, grain drill and plow for cover crops, a myriad of irrigation equipment not to mention an acre of trucks and trailers. All of these are used to some degree for cotton and are indispensable to its successful and efficient production and harvesting.

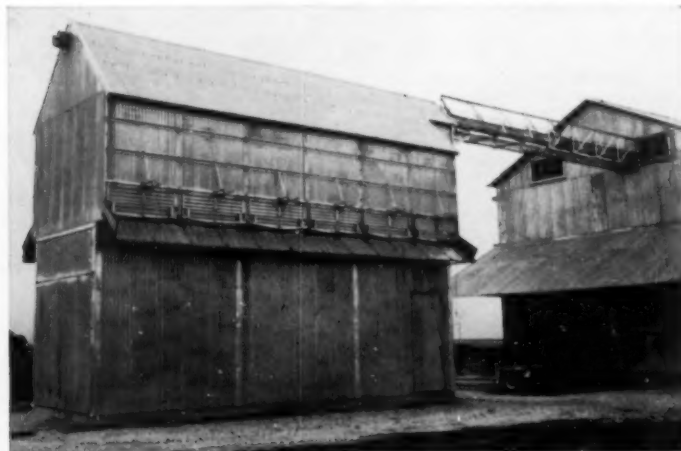
Efficiency is directly related to the number of hours you can use a piece of equipment. Since 1952 I have had a cotton picker which has seen very little use. Up to now it was either not ready for me or I was not ready for it, but I strongly feel that the time is on the way when we will pick mechanically most of the cotton of the Valley.

In the long run I feel that a man must adjust his mechanization within certain limitations. One of the limits of mechanization is finance. I have set that somewhere in the neighborhood of \$100 an acre. Another limitation would be acreage or the size of the farm. Certainly depreciation is going on all the time. Depreciation of machines on a five year basis is about right and that is \$20 an acre.

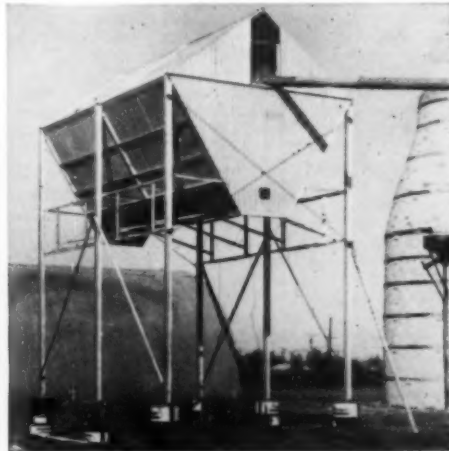
The third limitation of mechanization is the extent to which equipment can be made to overlap on other crops such as vegetables and row crops, thus easing the total burden to cotton.

Yes, we have come a long way. We are a long long way from the one horse walking plow and the gunney sack model

Approved by Insuring Companies



RAPID DELIVERY SEED HOUSE—6 Doors on Each Side. Standard Sizes: 20-30-40 Tons or Larger Capacities.



BOTTOM DUMP BURR HOPPER—8 Doors. 25-35-45 Bale Capacities. Based on 500 pounds Burrs per Bale.

FABRICATORS and ERECTORS of Pre-Fabricated Gin Buildings

Mote Buildings • Warehouses • Conveyor Trusses

Towers • Mix Feed Plants • Meal Bins

Serving Gins, Oil Mills and Compresses.

Tru-Fab Metal Products Co., Lubbock, Texas



P. O. Box 404

Phone POrter 2-8323

poison applicator. We now have six-row planters, modern diesel tractors and 10-row sprayers delivering 100 gallons of liquid per acre at 100 pound pressure. Yet we have only begun. I predict great progress in cotton mechanization in the next few years. That progress will be brought about because we are bent on reaching the goal of lowering the cost of production through more efficient machines.

Tooling For In-Furrow Disease Control

by DR. LUTHER S. BIRD

Cotton Pathologist, Texas Experiment Station, College Station.

Research conducted for several years has shown that, in addition to seed treatment, the method of mixing fungicides into the covering soil at planting can be effectively used for seedling disease control. This method has been accepted by growers who have used it. The number of treated acres has increased considerably during the past three years.

An example of research results is the 1958 Hungerford, Texas test where the better treatments gave about 50,000 plants per acre while the controls had less than 13,000 plants. Results of these and many other tests have adequately shown that reduced stands, stand skips and damaged root systems caused by seedling disease can be greatly reduced when recommended fungicides are properly mixed into the covering soil.

The mixture of one and one-half pounds of 50 percent captan, one and one-half pounds of 75 percent PCNB and two pounds of 65 percent zineb per acre is recommended for Texas. This mixture gives consistent results over a range of soil pH's, soil temperatures, and it is effective against the three major fungi which cause the disease. Several other mixtures show promise but as yet have not been adequately tested.

Seed treatment alone has little, if any, effect on pre-emergence and post-emergence damping-off or seedling root rot. The zone of protection conferred by the seed protectant is too limited to prevent infection after the seedling ruptures the seed coat. Mixing of the proper fungicides into the covering soil extends the protection from the seed area to the soil surface. The key to obtaining the desired results is the proper placement of the fungicide so that it forms a continuous band about one inch wide from the seed furrow to the surface of the covering soil. The seed furrow should be coated and the surface of the covering soil should be well treated.

The first consideration in tooling for in-furrow disease control is seed placement. The seed should be dropped into a definite "V-shaped" furrow. This confines the width of the seed band thus making it easier to place a band of fungicide above it. It is impossible properly to place a good protective band above seed that have splattered across an area one to two inches wide.

With proper seed placement, the fungicide can be applied either with a spray rig or a duster. The fungicide would be the deciding factor if it is a liquid. If the fungicide can be applied either as a dust or a spray, then such things as

cost of equipment, cost of material and the availability of water in the field should be considered in making the choice.

• **Spray Application**—A 55-gallon barrel should be mounted on the tractor so that it is clear of the planting rig. The barrel should be equipped with a full length jet agitator so that wettable powders can be maintained in a uniform suspension. A high-volume nylon roller pump should be mounted on the power take-off shaft. The circulatory system should be equipped with a pressure regulator with the by-pass line returning to the barrel through the jet agitator. The pressure line should go to a manifold that is arranged for two drops per row.

The arrangement of the spray nozzles in relation to the seed drop tube and the covering devices is the crucial factor in getting good fungicide placement. Two nozzles should be used per row. The first nozzle should be centered over the seed furrow immediately behind the seed spout so that the spray strikes the soil around the seed and to either side of the seed over an area as wide as the covering devices. The second nozzle should be centered between the covering devices so that the soil is sprayed as it is rolled over the seed. The rear of the cone should strike the top of the covering soil. With planters that have a seed press wheel and a covering press wheel, the front nozzle should be between the seed spout and

the seed press wheel and the second nozzle between the two press wheels. If a drag is used behind the covering press wheel then the rear nozzle should be placed on the drag.

Tests show that five pounds of wettable powder can be applied effectively in seven gallons of water per acre. Thus, with one 55 gallon barrel, seven and one-half acres can be treated before refilling. Two barrels can be mounted on most tractors so that 15 acres could be treated before refilling.

The distribution pattern obtained with spray application is not as wide as desired. For this reason it is doubly important that the seed be placed in a narrow band so that the seedlings will emerge through the protection zone.

• **Dust Application**—The fungicide dust should be delivered from the duster to the applicators under high air velocity to prevent clogging of the delivery tubes. The velocity should be reduced at the applicators to allow thorough mixing with the soil with as little dust loss as possible.

Efforts to achieve in-furrow disease control by applying fungicides through the hopper with the seed have so far been unsuccessful. Fungicides applied this way only extend slightly the protection given by seed treatment. None of the fungicide is mixed into the covering soil and for this reason hopper treatment should not be confused with in-furrow disease control.

Panel Discussion

Research Round-Up on Ground-Application Equipment for Liquid Chemicals

Moderator, REX F. COLWICK

Coordinator, Regional Cotton Mechanization Project, State College, Miss.

Only 10 or 11 short years ago a power-operated sprayer on a cotton farm was a novelty. Most of the few to be found were of the high-pressure, high-volume type designed for use in orchards; and they were usually mounted on a low trailer that could not get through cotton after it was two feet high. In 1947, 11 years ago, there were less than 3,000 tractor power-take-off sprayers manufactured. In 1955, there were 39,256 manufactured. The average for the intervening years was 53,843. In 1947 buyers guides listed only five manufacturers of tractor-mounted power-take-off sprayers. In 1948 there were 16. Buyers guides now list over 100 manufacturers of tractor mounted boom-type sprayers and 17 manufacturers of high-clearance self-propelled sprayers. A respectable proportion of this mushrooming in sprayer sales has been in the Cotton Belt.

This phenomenal expansion in use of a new tool can be attributed to the availability of more and better agricultural chemicals and good equipment for applying them. The chemicals in liquid form began to appear after World War II first as insecticides. Satisfactory ground equipment for applying them was not available. At the third annual Beltwide Cotton Mechanization Conference in 1949, USDA entomologist S. L.

Calhoun pointed out that the new liquid insecticides had to be diluted with too much water when applied with ground sprayers available at that time. He also reported on the development of a low-pressure, low-volume, tractor mounted sprayer in 1948 by O. B. Wooten and W. R. Smith which could apply as little as 0.7 gallons per acre. The inexpensive sprayer they developed with the cooperation of nozzle and pump manufacturers, became the prototype of most sprayers used in cotton today. Subsequent research and development applied the same basic machine to the application of herbicides and defoliant.

This development of the basic cotton sprayer did not solve all the chemical application problems any more than the first cotton picker solved all the harvesting problems. Research and development has continued to improve the chemicals but not always their ease of application. Other cultural practices such as irrigation in the humid areas has created new problems in application equipment. It has, therefore, been imperative that research be continued to improve the basic equipment as well as development of new equipment to meet new needs and problems as they arise. There are always plenty of these new problems to keep us busy; often too busy to work on the basic problems. For example, at the last Mechanization

Conference, G. W. Giles reported that only 15 percent of the insecticides being applied actually killed insects. The other 85 percent is applied only to assure coverage.

The gentlemen on this panel are here to tell you about some of the research that is being done on equipment for the application of agricultural chemicals; and I am sure that as they try to give you all the answers, they will make it clear that there are still many problems to be solved.

Panel Discussion

High-Clearance Rigs

by E. B. WILLIAMSON

Agricultural Engineer, USDA, Delta Branch Experiment Station, Stoneville, Miss.

The high-clearance self-propelled applicator rig is a completely new type machine that recently has been used extensively in some areas in the production of cotton.

Several factors influenced the development of this new agricultural tool and its eager acceptance by cotton farmers. Foremost was the development of synthetic organic insecticides shortly after World War II, which made possible the spraying method of applying insecticides. Previously, most insecticides had been applied as a dust.

• **Early Background** — The introduction of the synthetic organic compounds was accompanied by the development of the low-gallonage, low-pressure sprayer. Some research workers first used this inexpensive applicator in conjunction with the cultivator so that early spraying for thrips and other cotton insects could be accomplished simultaneously with regular cultivation. As a result, many farmers became interested in a chemical-control insect program for the first time and several thousand of these machines were sold in the Mississippi Valley alone in 1950 and 1951. However, the practice of combining these two important operations did not prove entirely satisfactory.

It soon became evident that the interval of spraying for insect control was often different from that required for cultivation, and that only limited acreage could be covered with a four-row sprayer traveling at normal cultivating speed. In recent years, late infestation of cotton plants by various insects has also pointed more and more to the need for a sprayer that can be used in cotton of any height.

Early attempts at mounting chemical application equipment on a high-clearance vehicle consisted of installing a sprayer or duster on the chassis of a cotton picker tractor. This was readily accomplished by removing the picking unit and basket from the tractor and mounting the applicator rig on the stripped-down machine. This practice did not prove too satisfactory, however, since many farmers preferred to convert their cotton picker tractors to standard tractors for other crop production jobs. In addition, all makes of cotton pickers were not capable of being modified to chemical applicators.

• **Today's Machines** — After several

years of experimentation and trials under different field and crop conditions, the self-propelled, high-clearance machine finally has been accepted as standard equipment on many cotton farms in the alluvial and irrigated regions. The widespread interest in this new type chemical applicator is a result of its overall superior performance and its wide versatility, as compared with other ground and airborne machines. In addition to its serviceability in both early- and late-season insect control operations, it has proved capable of performing many other jobs. These include the application of liquid fertilizers, pre- and post-emergence chemicals and defoliants. Several manufacturers are also offering as optional equipment various cutting and seeding attachments in addition to spray, dust, and granular applying equipment of all kinds.

Mechanization research engineers have also developed practical methods of installing and operating flame, mechanical, and late-season chemical cultivating equipment on high-clearance vehicles. These developments include a sweep cultivator that was modified and used successfully in cultivating tall cotton, corn, and sorghum at Stoneville, Miss., in 1956 and special flame cultivation equipment that has been adapted to high-clearance machines in California, Texas, and Mississippi in recent years.

Since many high-clearance machines are not powered with water-cooled engines, it was necessary to provide other means of vaporizing fuel for the flame burners. This problem was solved by one of the engineers at Stoneville, who devised a special heat-exchanger type vaporizer that has proved practical and economical to operate.

Although experimental attachments have been devised for applying chemicals for late-season weed control and for defoliants, additional research is needed to perfect application equipment of this kind.

One of the most outstanding qualities of the high-clearance applicator is its low cost of operation. Results of a survey of high-clearance machine operators indicated the cost of application with the ground machines was much less than with airplanes when a total of 1,000 acres or more acreage was covered per year. The study, which did not include the cost of the spray or dust, showed that the cost of application was less than one-half that of airplanes when the total acreage involved was more than 3,000 acres.

It also has been determined in tests conducted by insecticide manufacturers that farmers can maintain a three-day schedule with ground machines at the same cost as that required for maintaining a five-day schedule with airplanes. This includes the cost of materials which are currently available. Even greater savings can be expected when farmers fully utilize their machines for the many different operations that can now be done.

Other important advantages of the self-propelled, high-clearance applicator over airplanes include (1) better control of the quantity of chemical applied, (2) placement of the chemicals exactly where they are needed, (3) covering parts of fields that are inaccessible to airplanes, and (4) effect on aerial applicators, who are now compelled to do a better job.

The primary disadvantage of the high-clearance ground applicator is the

problem of operating in wet fields. This is caused by excessive rainfall in some areas and by irrigation in others. Due to the light weight of this applicator, presently available row-crop tires at minimum pressures do not provide adequate flotation. Investigations were recently initiated by public research in cooperation with tire and machinery companies for the purpose of studying this problem. Controlled laboratory and field tests on tire flotation and mud shedding qualities have been designed to provide basic information that can be used in improving the performance of self-propelled, high-clearance machines.

Although many other weaknesses have been corrected, the following areas appear to need additional attention:

1. Adequate power units on all models (minimum of about 25 horsepower).
2. Lower center of gravity for improved stability on tricycle models.
3. Increased use, if possible, of the two-drive-wheel principle.
4. Less weight and increased strength in chassis.
5. Floating type wheel shields.
6. Easier operation of vehicle and applicator.
7. Speedometer.
8. Corrosive-resistant plumbing fixtures and tanks.
9. Safer loading and operating facilities.

Panel Discussion

Spray Nozzles

by LAMBERT H. WILKES

Associate Professor, Texas Experiment Station, College Station.

Studies with spray nozzles for the application of insecticides for controlling cotton insects were initiated in 1950 by the Texas Agricultural Experiment Station. These tests are being conducted by the Agricultural Engineering Department in cooperation with the Entomology Department in the Brazos River Field Laboratory near College Station. Several types of spray nozzles and nozzle arrangements were used to determine their effectiveness in controlling insects. Tests were also conducted using various quantities of liquid spray material.

In the latter series of tests, three different rates of applications or quantities of liquid spray were compared over a three-year period. Using the same amount of active ingredient, the insecticide was applied at the rates of two, six and 14 gallons per acre. It was found that equally effective control of insects could be obtained by timely application of spray with the two-gallon-per-acre rate compared to the higher rates of six or 15 gallons, provided the proper amount of active ingredient was used. Spraying the plants at the low rate of two gallons per acre is certainly more economical than applying spray at higher rates because of the time and labor saved by handling a smaller quantity of water.

The use of small orifice nozzles, however, requires extra care in mixing the spray materials to exclude all trash and solid particles which could clog the

smaller nozzle and the finer mesh screens required by their use. Closer attention is required on the part of the sprayer operator to insure that all nozzles are functioning properly. Application rates of two to eight gallons per acre are now being recommended through the Texas Insect Control Guide. Rates of four to six gallons per acre will probably be more satisfactory because of less dangers of nozzle stoppage.

Two types of nozzles were compared in tests conducted during the years of 1954, '55, and '56. Results from these tests have shown that nozzles producing a cone-shaped pattern were more effective in controlling insects than nozzles producing a flat fan-shaped pattern.

Four nozzle arrangements were also

compared to determine their effectiveness in controlling insects. The arrangements consisted of the following:

1. One nozzle per row.
2. Two nozzles per row—spaced 20 inches apart on the boom.
3. Two nozzles per row—nozzles attached to boom drops and angled to the sides of the plants.
4. Three nozzles per row—one nozzle directly over the row and two nozzles on drops angled to the sides of the plants.

The nozzle sizes, pressure and ground speeds were selected so that all tests received an equal amount of spray material.

Results from these tests over a five-year period have shown that one nozzle

directly over each row resulted in yields equal to those arrangements employing two and three nozzles per row. This again should result in a savings to the farmer from the standpoint of simplicity of operation and maintenance as well as a lower initial investment.

During the 1957 growing season, three types of wide-swath, or boomless, nozzles were included in the nozzle tests. Two of the boomless nozzles were capable of covering a swath of six 40-inch (21 foot) rows and the third was capable of carrying a 12-row swath (42 foot). Crosswinds affected the distribution on windy days, especially with the 12-row nozzle. However, yields obtained at harvest showed no difference between the wide swath nozzle and the conventional low gallonage boom type nozzles. Card data showed that good penetration of material was obtained with all nozzles.

Although the results from the new boomless nozzles are encouraging, more research is needed to determine the effects of crosswinds on distribution of the material and the effects of droplet sizes on controlling insects before they can be recommended for the application of insecticides.

♦ ♦



**MORE AND MORE SOUTHWESTERN
COTTON FARMERS PLANT . . .**

WATSON

STORMPROOF COTTON

**Other
Popular
WATSON
Varieties**

**EMPIRE
STONEVILLE
62
D&PL
WATSON
ROWDEN**

Watson STORMPROOF is early maturing, prolific, high quality cotton, moderate foliage. Excellent yield, stays in the burr, good lint per cent, top grade, 31/32 to 1-1/16 inch staple and high micronaire. A perfect stripping or hand snapping cotton.



For the finest seed in the Southwest . . .

FERRIS WATSON SEED CO.

GARLAND (DALLAS COUNTY), TEXAS

Panel Discussion

Herbicidal Equipment

by

CARL H. THOMAS
Associate Professor,
Agricultural Engineering
and

W. K. PORTER, JR.
Associate Plant Pathologist,
Louisiana State University,
Baton Rouge.

To evaluate the research results of equipment for the application of herbicides in cotton, we will review the types of machines and methods of herbicide application that are presently recommended and used within the Cotton Belt.

• **Pre-Planting Herbicide Applications**—At present none of the experiment stations are recommending an application of pre-planting herbicides. The main pre-planting weed control measure appears to be mechanical by deep turning of the soil to minimize the quantity of weed seeds at levels of germination. California, however, is planning research in the use of a herbicide at the time of pre-planting irrigation. This irrigation tends to minimize the early weed problem by the germination of a large number of weed seeds prior to planting.

• **Pre-Emergence Herbicide Applications**—In the more humid areas with relatively medium or light soils, pre-emergence herbicides appear to be the major accomplishment in the battle against weeds in cotton. These herbicides have not proven successful in heavy buck-shot types of soils because of the extreme cracks that develop in the soil surface, allowing weed emergence without contact with a herbicide.

The pre-emergence herbicide applica-

tion should be made in conjunction with the planting operation to insure proper centering of the spray on the drill and minimizing the cost of the herbicide application.

The pre-emergence herbicide application should be made on a 12 inch band, using 12 gallons of solution per acre.

The most successful pre-emergence herbicide applications are being made with one nozzle mounted directly behind each planter press-wheel. Nozzles having a capacity between 0.3 and 0.5 gallons per minute and producing a flat fan 80° to 90° pattern are recommended for pre-emergence applications. Research has indicated that special rollers do not increase the effectiveness of the pre-emergence herbicides; however, the smooth surface of the seedbed aids in the application of post-emergence oil and flame. The nonpressure rubber coverings for open-center press-wheels have been proven beneficial for the pre-emergence herbicide applications.

Some of the major needs for research and equipment relative to the application of pre-emergence herbicides are (1) the location and manner of mounting sprayer tanks on tractors equipped with planters and fertilizer applicators, (2) mounting brackets for nozzles on planters behind the press-wheels, (3) more precision in hill-dropping attachments for planters to produce more compact hills of cotton and (4) sprayer control panels including a valve, pressure regulator and pressure gauge with easy access to the operator for tractors used for cotton planting.

• **Post-Emergence Herbicide Applications**—Post-emergence herbicides are recommended for use in cotton that is

tall enough to allow the spray to pass under the foliage and before cracking appears on the stem. These oils are adapted to conditions where the grass and weeds are relatively small.

The post-emergence oil application should be made on about a 10 inch band centered on the drill, with the nozzles adjusted to spray horizontally less than one inch above the seedbed. The application can be made with a cultivating operation or in a separate operation. When made with cultivation, post-emergence shields are used to prevent the throwing of soil to the treated areas. The shields hold the nozzles and serve as height gauges.

Fowler cultivators are used successfully in some areas of the Southeast. The fowlers are blade type cultivators with an action similar to that of runner wings used on some planters. These blades shear a shallow section of the soil surface, removing weeds from the side of the herbicide treated band. Sliding type parallel-acting shoes are used for the nozzle mountings when the application is made separate from cultivating operations.

Several nozzle settings have been used successfully for the application of post-emergence oils.

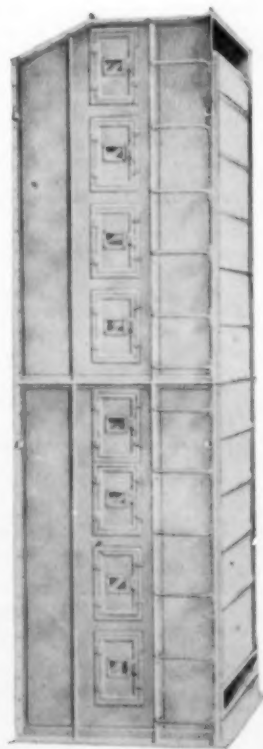
Data from past research have indicated that similar results can be expected with all nozzle settings adjusted between 40° and 90° with the line of travel. No weed control differences existed between settings of these nozzles forward or backward from the direction of motion of the applicator.

In cases of extremely high infestation of small grasses and weeds, four nozzles

per row have been used to obtain more complete coverage of the treated area. It is suggested, however, that a higher volume of oil per acre be used with four nozzles per row.

• **Lay-By Herbicide Applications** — No state experiment stations recommend a chemical for use as a lay-by herbicide; however, in some parts of Arizona and New Mexico, Karmex DW is being applied at a stage of cotton growth that does not permit conventional cultivation without crop injury and yield reductions. New Mexico suggests that the field should be clear of weeds immediately prior to the chemical application and no operations of any type should be performed that will stir the soil after the chemical is applied. Arizona suggests the use of the chemical when high clearance machines are needed.

The Louisiana Experiment Station is using two nozzles per row, adjusted to spray the entire area except approximately a four inch to five inch band centered on the crop row. These nozzles are mounted on the rear of a high clearance sprayer with swivel nozzle adjustments to obtain proper row coverage. Shields may be used to lift the cotton branches to prevent contact with the chemical being sprayed. Preliminary results indicate excellent weed control for a long period of time. The timing of such a herbicide application is being investigated in this study. The possibilities of this means of weed control appear to be promising in terms of earlier lay-by of cotton, eliminating late season cultivations and reducing the weed and grass contamination of cotton at harvest time. ♦ ♦



You Get MORE for your money with a

WONDER STATE TOWER DRIER

- ★ 2 Section Construction of 16 Gauge, reinforced by 2 x 2 x 3/16 angle iron. Each section weighs 1750 lbs. It's made to LAST.
- ★ Removable front and back, and shelves to facilitate on-the-job re-pairing, which reduces down time and repair costs.
- ★ Featuring — Non-painted shelves to minimize fire hazard and choke up. Wonder State Original Non-Choke Discharge.

Write, wire or call

WONDER STATE MANUFACTURING CO.
Paragould, Arkansas

Mechanization and Quality Cotton

Moderator, EDWARD H. BUSH
Executive Vice-President, Texas Cotton
Ginners' Association, Dallas.

It has often been stated that cotton's future hinges on price, quality and promotion. Article after article and speech after speech have been made concerning the importance of quality.

For many years, quality was evaluated on the basis of grade and staple. More recently however, new tests have been devised in an attempt to define and evaluate this elusive characteristic called quality.

Quality involves tensile strength, color, foreign matter content, maturity, staple length and staple length uniformity, and character.

A quality cotton is one which performs well in the spinning mill under a given set of conditions. I personally prefer to call this term—spinnability—and even this is inadequate.

Today, because our economy is being affected by outside factors which influence the production and sale of our cotton, it is more important than ever before that emphasis be placed on quality.

Through research, the mechanization of cotton has advanced to a degree undreamed of a few years back. There are areas of the Cotton Belt today producing cotton on an entirely mechanized

basis. While this is most commendable—in fact even necessary—such a revolution to mechanization has brought with it the problems of maintaining the inherent qualities of the cotton produced. To make cotton production more conducive to mechanized planting and cultivation processes, new varieties have been developed.

Probably the greatest impact on quality has been caused by the introduction of machine-harvesting methods and new ginning practices. I think that in most instances, producers, ginners, and spinners alike, recognize the need to maintain quality, however, many times they are unable to cope with the problems they face. This, I believe, is the greatest argument we have for an adequate research and educational program.

Solving the problem of quality preservation involves every individual in the cotton industry today.

It takes the concentrated effort of everyone concerned to preserve cotton's quality. The producer cannot do it by himself no more than the ginner, or the warehouseman, or the spinner. It is a problem that can only be solved by all of the people involved.

Faced with this situation cotton farmers may well ask, "What can I do to produce the more precise qualities of fiber now being demanded?" The answer to this question is not easy. Much research is under way in an attempt to provide practical guides, but in the light of present knowledge, the best single recommendation is: plant a variety that is known to be capable of giving the required fiber properties under the conditions in which you expect to grow it.

• **Fiber Maturity**—Growers should check their soil for fertility needs. For maximum production of good quality cotton the nitrogen, phosphorous, potassium and organic matter requirements must be met. Heavy applications of nitrogen too late in the season should be avoided. Late rank growth, combined with late irrigation and an early frost can build up to considerable fiber damage.

Irrigation before planting is important in the production of good quality cotton. The soil profile should be moist to a depth of four to six feet to insure adequate moisture storage and root development. Any hard pan should be eliminated so that roots can penetrate deep into the soil. The first summer irrigation should be made after the cotton begins blooming. It should provide moisture to a depth of two to three feet. Earlier irrigation encourages vegetative growth, retards fruiting and delays maturity. Irrigation systems and field layouts should be designed to conserve and make maximum use of rainfall and irrigation water. The cut-off date should occur at the last average effective boll set.

• **Color, Foreign Matter and Defoliation**—Color of the lint is influenced by in-

sect damage, diseases, fungi, honey dew, boll rot and undue weather exposure both before and after the bolls open. Cotton from frost damaged bolls is tinged or stained yellow color. Weather exposure in the field causes a dull gray color. Green leaf stain, oil and grease contamination reduce the grade.

Foreign matter includes both green and dry leaf of various kinds, stems, burs, shale from inside the burs, motes or immature seed, seed coat fragments, sand, dust and dirt from off the ground.

Good defoliation reduces excessive leaf trash. Defoliation is desirable in fields where there is an excess of moist foliage and rank growth, a full boll load and a tendency for cotton to lodge or for the bolls to rot. Timing the application is the most critical single factor to be considered. If the defoliant is applied too early it causes reduction in yield which might offset any advantage to machine picking efficiency or quality improvement. A poor leaf drop will probably be obtained if the cotton is in a definite water stress, has started a regrowth, or late, cool weather has started.

The time of day for applying defoliants and desiccants is important. Early in the morning or late in the afternoon is the best time to apply true defoliants. The higher moisture content of the atmosphere helps activate these defoliants, both in the dust form and the water-carried spray defoliants.

Desiccants, on the other hand, such as "Penta" applied in diesel oil or kerosene, should be applied when dew is not present. Better penetration can be obtained by middle-of-the-day application with as little wind as possible. Desiccants are recommended for defoliation where stripper harvest is practiced before frost.

Since present-day gin machinery is unable to remove certain weed particles and grass from cotton lint, it is absolutely imperative to prevent weeds and grass from remaining in the field where they can be harvested by machines and carried to the gin with the cotton. Weed and grass control is vital before harvest to prevent grassy bales, field losses and machine stoppage. Spot treatment of Johnsongrass is faster, cheaper and easier than hand hoeing. Another excellent weed and grass control practice is lateral oiling with naphtha using parallel-action oiling shoes attached to a regular spray machine.

The key mechanical weed and grass control practice is use of the rotary hoe. Flame cultivation is also becoming more popular in irrigated areas.

Panel Member

Picking

by O. B. WOOTEN

Agricultural Engineer, USDA, Delta
Branch Experiment Station,
Stoneville, Miss.

The problems of picking cotton differ from one location to another across the Belt because of the wide variation in weather, topography, and soil type. Regardless of the variation in conditions, the ultimate goal of the project is the production of low-cost cotton.

• **Best Time to Defoliate**—With present defoliants, timing of the application

Panel Member

Producing

by FRED C. ELLIOTT

Cotton Work Specialist, Texas Extension
Service, College Station.

Let's take an objective look with the possibility of "separating" out and identifying some of the controllable or partially controllable quality factors—such as variety, maturity, color and foreign matter (grass and weeds), defoliation and insect control.

The condition of seed cotton at the time it reaches the gin largely determines the final grade of the lint in the bale. Machine harvesting has brought many benefits to the cotton industry. It has also brought some production problems in preserving cotton quality.

• **Variety**—The method of harvest to be used helps determine the variety to plant. In general there are two types of cotton for the two types of harvesting machines. Open boll varieties lend themselves to harvesting by the spindle picker and the storm-resistant varieties lend themselves to stripper harvest.

Since the properties of the raw cotton, i.e., length, strength, fineness, etc., are known to govern the way a cotton will spin and type of product that can be made from the yarn, many manufacturers of textile products have established the practice of specifying certain ranges or limits in respect to one or more of the new fiber quality measurements. The cotton merchant, in turn, must take these measurements into account when he purchases stocks for the mills.

is of paramount importance. Recent tests in the Midsouth have shown that the optimum time for defoliating is when approximately 60 percent of the cotton has opened. Under dry weather conditions, approximately 90 percent of the crop will then be ready for picking two weeks later. This assures the harvest of a large percentage of high-quality cotton with a minimum of field and picker loss.

In general, cotton in the high rainfall areas will suffer a grade loss due to weathering near the end of the harvest season. To obtain the highest grades following a good job of defoliation, the cotton should be harvested before second growth begins.

Although tests have shown that defoliation is not always profitable, some improvement in grade is usually obtained when well-matured cotton is harvested immediately after maximum leaf drop.

• **Spindle Moistening Agents** — Wetting agents and detergents have been tested at the Delta Station in Mississippi for the past 12 years. The various surface active materials have been tried at different levels of concentration. Results of the various trials have failed to show any significant gains in picking efficiency or grade of lint because of the use of these agents.

• **Spindle and Atmospheric Moisture** — Previous data have shown that seed cotton with a moisture content of 12 percent or more usually presents problems in storage and ginning. Moisture studies conducted in connection with mechanical picking in the past four years have shown that moisture deposited on open cotton by dew or rain has more effect on harvesting and handling than moisture applied by the spindle. Furthermore, excessive rates of water applied to the spindles did not produce differences in grade and picking efficiency, as compared with low rates of application. The increase in moisture content of the cotton rarely exceeded two percent when the high rates of water were applied.

To illustrate the adverse effects of excess moisture from dew or rain, the following example is cited. One large-scale test showed a grade loss amounting to approximately \$12.50 per bale when the cotton was picked wet with dew as compared with cotton picked later in the day from the same field. Moisture was applied to the spindles at the same rate.

Relative humidity is not an infallible means of predicting the moisture content of seed cotton and lint in the field. However, it is to some extent useful as a guide in determining when field seed cotton moisture is low enough for satisfactory picking. The close relationship of relative humidity to cotton on the plant emphasizes the fact that the operator should wait long enough for excess moisture to dry before entering the field with the picker. Compressing the open locks of cotton on the stalk with the fingers will give an indication of moisture content.

• **Needed Research** — Further research is needed to solve the following problems that adversely affect the production of quality cotton:

1. Harvesting excessive trash in machine-picked cotton, particularly green leaf in the early season.
2. Presence of excessive moisture, which in combination with green leaves, presents handling and ginning headaches.
3. Field handling methods that cause

deterioration in grade before ginning.

4. Economic studies have shown that defoliation is often unprofitable. There is reason to believe that a better defoliant applied at the right time will produce dividends.

The challenges presented by these problems can best be met by continued research by both public and private research agencies.

♦ ♦

Panel Member

Stripping

by E. W. SCHROEDER

Head, Department of Agricultural Engineering, Oklahoma State University, Stillwater.

The success of cotton harvesting operations with stripper type machines is dependent upon the efficiency of the operation and the quality of the cotton harvested. The principal factors affecting efficiency and quality are: plant population, variety of cotton, condition and preparation of cotton plant at harvest time, and machine used for harvesting.

Control of the variables within these factors to provide the most efficient harvesting conditions and at the same time produce the highest quality of product is most difficult. The combinations for greatest efficiency may not yield the highest quality of product. The best combinations for efficiency and quality for one season may not be the same for the following year.

PLANT POPULATION

One of the most costly penalties associated with stripped cotton is bark in the lint caused by the presence of sticks in the harvested cotton. As sticks pass through the harvester and the gin, small pieces of bark are torn from the sticks and mixed with the cotton. It follows that practices which reduce sticks in the harvested cotton improve quality. Research over the past three or four years has shown conclusively that sticks in cotton harvested by stripper type machine are reduced as plant population increases.

Other factors that affect quality are large and small leaf trash, and motes. These factors remain rather constant as plant population varies. 30,000 to 50,000 plants per acre appear to be a fair compromise for good harvesting efficiency and quality of product.

VARIETY

Data from Texas and Oklahoma for the past three years clearly indicate that recommended stripper varieties can be harvested efficiently and a good quality product expected when recommended practices are followed. When recommended stripper varieties are used, harvesting efficiencies are as a rule above 95 percent and seldom below 90 percent. With non-stripper varieties the efficiency may be as low as 70 to 80 percent.

When other factors affecting quality are properly controlled, recommended stripper varieties usually yield cotton of acceptable quality. Tests based on grade index in 1956 and 1957 in Oklahoma and Texas show that the following stripper varieties produced high quality

cotton: Western Stormproof, Parrott, Lankart 57, Blightmaster, Stormking, TPSA No. 2, CA 119, Lankart 611.

PLANTS FOR STRIPPING

The ideal condition of a cotton plant for stripper harvesting is a completely defoliated plant with main stems and branches alive and tough with all the cotton on it mature and dry. Then stems and branches are pliant and sticks are not broken off. The selection of plant preparation and date of harvest that will produce these conditions will vary from season to season. Since method of defoliation and dates of harvest do not significantly affect efficiency of the machines, the management of these variables may be directed toward obtaining a high quality product.

Gross returns as affected by defoliation and stripping practices in 1956 were exactly reversed of those in 1955. In 1955, with no rainfall between the two harvest dates, the green bolls matured and the crop suffered no grade deterioration; therefore, harvesting after frost was profitable. Due to the drouth in 1956, the crop was mature before frost date. Five inches of rain between the harvest dates 32 days apart caused the crop to deteriorate when allowed to remain in the field until after frost. Harvesting before frost was therefore profitable in 1956.

This points out the extreme variability of conditions that may exist from one season to another and that the judgement of the grower must be exercised on the treatment to use to obtain high quality cotton.

Under conditions of adequate rainfall with the cotton plant still flourishing vigorously and with fruit in all stages of development as the time of harvest approaches, the producer would realize greater returns by waiting until after frost to strip with no plant preparation of any kind.

However when a good crop matures before frost date, there is no reason to delay harvest until after frost except to save the expense of defoliation, and an early harvest reduces the possibility of damages from late season rains which may set on bolls too small for effective removal or reduce the quality of cotton due to weathering. Under conditions of extreme drouth low yields may not warrant the expense of defoliation.

THE MACHINE

In order to secure a more accurate evaluation of machine efficiency and quality of the product as affected by the machine, the research during the past several years in Oklahoma has been directed toward evaluating the principal components of the stripper harvester: namely, the stripping rolls, conveyor systems and extra cleaning devices:

• **Stripping Rolls**—In seasons of small plant growth, the effects of different types of stripping rolls are probably of relatively little importance. However, in years of adequate rainfall or on cotton grown under irrigation, the type of stripping roll used can have substantial effects on grades. It has been found that brush and smooth steel stripping rolls harvest less sticks than do fluted or lugged steel rolls and the rubber paddle type of roll. Similarly, it has been noted that grade reductions due to bark in the lint have been more frequent from the more aggressive steel

At Memphis, Jan. 14-15, 1960

Production-Mechanization Conferences Will Be Merged

A MERGED Beltwide Cotton Production-Mechanization Conference in 1960 will be the successor to the two meetings—the Cotton Production Conference and the Cotton Mechanization Conference—which have been held in the past, it was announced in Brownsville at the conclusion of the 1958 Mechanization Conference, reported in this issue of The Press.

The first Beltwide Cotton Production-Mechanization Conference will be held in Memphis in 1960 at the Peabody Hotel, Claude L. Welch, director of the National Cotton Council's Production and Marketing Division, announced. Jan. 14-15 are the dates for the general sessions, while preliminary committee and technical meetings are planned for Jan. 11-12-13.

No conference is scheduled for 1959, but the final Beltwide Cotton Production Conference will be held in Houston in December, 1958.

The Council and other organizations that have cooperated in sponsoring the separate meetings will continue to sponsor the merged Production-Mechanization Conference.

Welch pointed out that progress in cotton technology has reached the point that production and mechanization activities can no longer be considered separately. "Both are essential parts of cotton's team," he added. "They must be coordinate parts—machines and other technologies must fit properly together on each field of cotton to get maximum dividends."

and rubber paddle rolls than from the brush and smooth steel rolls.

• **Conveying Systems**—Cotton strippers generally use four types of conveying systems. Some of these conveying systems are designed to do some cleaning. In the mechanization research in Oklahoma the kicker, auger, belt and fan conveying systems have been studied by evaluating their effect on cotton quality.

Conclusions based on the 1957 studies were that pneumatic conveying systems may lower the grade of the lint due to seed crackage. Lint grades of cotton handled in the machine by the kicker, auger, and belt systems were the same. The kicker conveyor which was most effective in removing trash removed only 75 to 100 pounds of trash per acre, where the yield was three-fourths bale per acre. Since there is no effect on grade, the effect of the most cleaning to the farmer would only reduce the ginning fee about 50 cents per acre through increased gin turnouts. Other than ginning fees, the difference in amount of cleaning is cancelled by adequate cleaning facilities in the gin.

• **Extra Cleaning Devices** — Stripping machines equipped with burr extractors were tried in 1946 and 1947. The Oklahoma station tests in 1947 and 1948 with results reported in the 1948 annual report concluded: (1) Harvesting with the burr extractors does not improve grade. (2) The burr extractor does not have the capacity to handle cotton rapidly enough to keep the rolls from clogging. The speed of harvesting is dependent upon the capacity of the extractor. (3) It does reduce the cost of ginning by about one dollar per bale. It is doubtful if this machine could pay for itself.

However, within the last three or four

years, several machines have been developed which provide extra cleaning and apparently have the capacity for handling the cotton as rapidly as it is removed from the plants.

One of these machines equipped with an auger grid cleaning device uses a combination nylon and rubber strip brushes for removing the cotton from the plant. This machine on dry land cotton in Oklahoma during 1957 season harvested the lowest percent of burrs, large and small leaf trash and total trash. However, it had a significantly higher percent of total machine loss than the five other machines tested. Type of cotton in the 1957 season particularly accounts for the high machine loss. An early hard freeze resulted in a large number of immature bolls which partially open but passed through the one-half-inch clearance grid. The cotton passing through the grid would probably have reduced the grade.

Another recently developed machine with nylon brushes for removing the cotton from the plant has a cleaning mechanism which consists of a series of channel saws and doffers, closely resembling the inclined cleaner in a cotton gin. Dale Cannon of Arizona makes this comment, "The cotton in the basket was almost completely free of any large trash, sticks and green bolls, more so than if picked by a tapered spindle machine. There appeared to be an excess of pin trash but this could have been an illusion due to the absence of larger foreign material." Cannon also says that there has been some trouble with bark late in the season, but that the manufacturers feel that this problem can be solved. The harvesting efficiency appears to be above 95 percent.

R. W. Drake, an Arizona farmer, re-

ports his experience with this machine as follows: On January 16, 1958, a block of cotton which had not been picked before, was snapped with hand crews. The rows on each side of this block were harvested for the first time with the stripper. Gin turnout: Hand snapped 26.06 percent, Stripper 33.46 percent; Cost per bale for ginning: Hand snapped \$19.23, stripper \$14.94. The grades were the same for both methods of harvest.

Another machine recently developed consists of a suction type harvester on which some field tests were run in Arizona. This machine is equipped with a Roots-Type blower and five hoses. Cannon states, "It picked the cleanest cotton I have ever seen. The lint turnouts ran as high as 42 percent and averaged 40 percent." The limiting factor of the machine seems to be a low picking rate and high initial cost.

The use of air blast attachment on the stripper to separate immature and mature bolls has been tested. Up to 80 percent of the immature bolls have been removed by this method. No significant increase in quality has been obtained by this separation method two to three weeks after frost. Its value for earlier harvesting has not been defined. This attachment is very helpful for loading trailers.

Panel Member

Handling and Ginning

by ROBERT A. MONTGOMERY

Cotton Technologist, USDA Cotton
Ginning Laboratory,
Stoneville, Miss.

The modern gin influences many characteristics of the cotton it gins. Primarily, it is designed to dry, clean, and gin. In attempting to enhance or improve the element of cleanliness, adverse effects on other measures of quality may easily occur. The success of the gin in providing high grades without detracting from other factors depends to a great extent upon the characteristics of the seed cotton as it is received. These characteristics, inherent in production and harvesting, may complement the function of the gin, or they may preclude deriving the benefit of gin cleaning from the standpoint of lint grade or from the standpoint of fiber quality.

With respect to fiber properties, weak fibers from diseased locks are more easily broken in the ginning process. Long fibered cotton, normally also finer, cannot be subjected to the drying and machining action to which coarse, short fibered cotton can be subjected without fiber breakage and nep increases.

• **Gin Effect on Lint Grade** — The modern gin is designed and should be operated, to insure a minimum of damage to fiber properties. Of first concern is how much can gin cleaning improve grade? This will vary, of course, between cottons and gins. Mechanically harvested cotton should be characterized by good fiber quality and good color. For white cotton, foreign matter content of the lint accounts for approximately 85 percent of the variation in lint grades. It is on this type of cotton that gin cleaning pays.

There are certain elements of quali-

ty, adversely affecting lint grade, which the gin may disguise rather than correct. These are green leaf stains, spots from other sources, oil and grease stains and, to an extent, picker twists. The gin removes many spindle twists and particles of twists, but some eventually reach the bale.

• **Gin Effect on Fiber Quality** — Fiber characteristics, as contributed by both genetic and growth environment, influence ginning effect. These fiber characteristics influence lint grade, but possibly more important they determine the extent of gin damage to the subsequent spinning value.

From the genetic contribution standpoint, long fibered cottons are more difficult to clean.

From the growth environment standpoint we may sum up the gin-field relationship by simply saying that the growth condition which permits the normal and full development of the inherent fiber properties also produces the fibers which will maintain top spinning value through the gin.

We think of gin cleaning for grade improvement in terms of seed cotton cleaning and lint cleaning. We must consider both in terms of their effect on fiber properties. Drying, originally used to facilitate smooth ginning, is now also used to improve efficiency of seed cotton cleaning machinery. Employed in this capacity, over drying has become the most common and detrimental malpractice in gins across the Belt today. If the gin does not dry enough, it is readily apparent in the grade of lint. On the other hand, overdrying is usually not evident until the cotton is in the mill.

Cooperation of producers in avoiding picking high moisture cotton and allowing the ginner to group and gin cotton of different moisture contents separately will contribute to lessening this type of fiber quality damage. The development of satisfactory automatic drier controls will aid in compensating for variations in moisture in the seed cotton.

Drying, of course, is necessary on most machine picked cotton. Used correctly drying to lower lint moisture to a range of four and one-half to five percent on this type cotton, facilitates seed cotton cleaning, smooth ginning and lint cleaning.

Elaborate seed cotton cleaning, accompanied by drying to a lint moisture range of three percent, will result in a fiber length reduction of one thirty-second of an inch, as compared to ginning with feeders and gin stand at a lint moisture of approximately six percent.

Fiber length uniformity is adversely affected by extensive seed cotton cleaning and drying.

Fiber length distribution, generally considered extremely important from the standpoint of mill operating efficiency, is also adversely affected by extensive seed cotton cleaning and drying.

Fiber strength is reduced in the order of two to three percent by "elaborate" as compared to "simple" seed cotton drying and cleaning. With each additional drier and two cleaners, an increase of approximately three neps per 100 inches of card web will occur.

Two general classifications of lint cleaners are currently being used. These are the air type and saw cylinder type. It is generally recognized that air type

cleaners do not harm fiber properties or spinning value of the lint.

Saw type lint cleaners on the other hand have been severely criticized by mill interests. Data collected by the Department's three Ginning Laboratories indicate much of this criticism is unjustified. Lint cleaning came into general use along with extensive seed cotton cleaning and drying. The data available indicates that most of the criticism directed at lint cleaning should have been directed at the use of overdrying and extensive seed cotton cleaning.

Saw cylinder lint cleaners do increase nep content of the lint. The magnitude of this increase for average cottons is in the order of four neps per 100 square inches of card web per saw cylinder lint cleaner.

Nep formation, or nep potential increase by saw lint cleaners on the lint, is the factor which limits the use of these units in gin cleaning. The use of two or more lint cleaners could result in final nep content exceeding permissible limits for the end use intended, when used to process high nep potential cottons, or where used in combination

with excessive combinations of seed cotton cleaning.

Fiber fineness is closely related to nep formation in both seed cotton processing and lint cleaning. In the case of areas producing the finer fibered cotton, or a producer growing a fine fibered variety, extra care should be exercised in harvesting, in order that a minimum of gin equipment can be used to obtain the grade objective. The excellence of spinning characteristics may be nullified by excessive neppiness and resulting lower yarn appearance.

Our recommendations for ginning both machine harvested and hand harvested cotton may be summed up as follows:

First, use only enough cleaning of any type to give a middling grade when this grade is possible.

Second, use lint cleaners, not to exceed two saw types, with enough drying to brighten color to obtain grade objective when possible.

Third, use additional seed cotton drying and cleaning along with lint cleaning only as needed to further obtain grade increases.

Needed: A Better Cotton Quality Yardstick

by GEORGE S. BUCK, JR.

Technical Research Assistant to
Executive Vice-President, National
Cotton Council, Memphis.

We know more about the cotton fiber today than we ever did before, and we are rapidly increasing our knowledge of its chemical, physical, and engineering properties. We are growing better cotton than we used to produce. Our cotton textile products, item for item, are as good or better than those of a score of years ago. Finishes for cotton yarns and fabrics have not only greatly improved but have increased in number and diversity. Cotton mill productivity and efficiency have sharply increased since World War II. These are all encouraging factors and evidence of the cotton industry's basic capability of responding to new competitive situations.

On the other hand, we cannot disregard some signs which indicate everything is not going as it should. More and more the accumulating evidence indicates that certain practices associated with our new technology can damage cotton. Our marketing system, which should relate quality and market value, has not been adequate to prevent this damage. We also have at least a suspicion that our marketing criteria have not told us enough about the qualities in cotton which must be improved to meet new competitive requirements. And we must, if we are reasonable, give careful attention to the complaints of our primary customers, the cotton spinners.

• **Spinners' Complaint** — The essence of the spinner's complaint is that, all too frequently these days, cotton's performance in the mill does not reflect its valuation in the market place. To put this another way, two cottons which have been assigned the same worth by our time-honored marketing criteria may perform quite differently in the

mill. There is no question that such differences do occur.

The mill man is concerned not only with the way cotton performs on his spinning frames and looms, but also with the effects which sub-par cottons have on the quality of his products. A fairly modest increase in the percentage of short fibers in raw cotton — not enough to affect classer's staple — can significantly lower the uniformity of cotton yarns, their appearance, and their tensile strength.

• **New Laboratory** — No one who is concerned with the long-term health and vitality of this industry will say that we do not need more real facts. In this effort, a new pilot spinning laboratory at Clemson College, operated by the USDA, will fill out what has been a serious gap in our information for many years. That is, our ability accurately to measure the mill performance of cotton, as affected by variety, environmental conditions, and by various harvesting and ginning practices. Until now we have had to rely on reports, opinions, and occasional mill-scale studies made possible by the cooperation of textile manufacturers. These latter tests, always tedious to conduct and sometimes difficult to control, have contributed enormously to our knowledge of cotton's mill performance.

The new pilot spinning laboratory must eventually be enlarged to include weaving and finishing, for our knowledge of cotton's manufacturing performance to be complete. The present plans, however, call for a spinning mill only. It will have 1,000 spindles of the latest type, supplemented by the necessary cards and drawing and roving frames. The opening and picking facilities of Clemson College will be available to the pilot laboratory. The spinning laboratory will be operated by the USDA. The facility is intended to serve the entire raw cotton industry, on problems

important to every area of the Cotton Belt, on an impartial and thoroughly objective basis.

The two elements which seem to make this new facility the most significant cotton research development of the year are: (1) that the pilot spinning laboratory, by enabling us to measure directly cotton's performance in manufacturing, will eliminate an important gap in our knowledge of cotton quality; and (2) that the cotton industry, in recommending so strongly the establishment of this new laboratory, has shown its determination to move positively on the matter of keeping cotton competitive in every aspect of quality.

The initial, or fact-finding stage of this quality program will lead to three distinct needs as a second stage. These are: (1) more research; (2) an educational effort; and (3) changes or modifications of certain practices. What responsibility does the cotton industry have at this stage?

• **Research** — On the matter of more research, here are some of the probable conclusions of the fact-finding stage, insofar as these things can be forecast: (a) that certain combinations of fiber properties dominate processing performance and product quality but that better methods of measuring those properties are necessary; (b) that certain genetics and cultural research may lead

to vastly improved spinning performances; (c) that some practices adversely affect fiber properties important in spinning but that more research is needed to tell why and how to modify these effects; (d) that abbreviated spinning tests can be developed that will extend the benefits of pilot-plant testing and research; (e) that there are ways to modify spinning conditions to improve the processing performance of certain cottons.

The pilot spinning laboratory was established as a result of a positive attitude on the part of this cotton industry. This attitude was "let's get the facts about cotton quality, as quality affects cotton's spinning performance and product value. Let's get the facts on how various practices in the industry affect cotton quality." This was a healthy attitude. It led to a good start in the all-out effort to be competitive in quality. But it does not and cannot end the responsibilities of the industry even though the USDA directly supervises the key facility of the new research effort, the pilot spinning laboratory. The time will inevitably come when the findings of that laboratory call for decisions. A cotton industry which has paved the way by active participation in and association with this program can best direct its later actions along constructive paths.

◆ ◆

Breaking New Ground in Mechanization

by CLAUDE L. WELCH

Director, Division of Production and Marketing, National Cotton Council, Memphis.

I early realized that the subject "Breaking New Ground in Mechanization" is full of implications for the cotton and equipment industries. And I was soon face-to-face with the fact that ground must first be cleared before it can be broken. So, in cotton mechanization, I wonder if we haven't just been clearing new ground thus far. We've just been making preparations to break new ground.

Let's take a closer look at those preparations, for they reach deeply into every facet of our current cost structure for cotton production. Although many factors are involved, mechanization is at the very heart of them. Just try to conceive of what would happen to the economic life-blood of the cotton industry as a whole, if our cost structure had to return even part way to the slow rate of operations, the untimeliness of operations, and the high manpower requirements of a man and a mule. As an indication of what would happen, economists tell us that under conditions where mechanical harvesting is feasible, today's production costs per pound of cotton are only about *two-thirds* to *three-fourths* as high as they would be with animal power and hand methods.

But what about those other technological factors that have also contributed—factors like better varieties; agricultural chemicals, including fertilizers, fungicides, herbicides, insecticides, and defoliants; irrigation; ginning methods and the like? It's not a matter of *either* mechanization or the other technologies—*BOTH* are essential parts of cotton's technology team.

Not only are they essential parts, but they must be coordinate parts. Farm managers must fit machines and other technologies together properly on each field of cotton to get maximum dividends.

Farm managers must have knowledge in not only mechanization, but also all the other disciplines entering into cotton production. For example, in deciding whether or not any of his cotton land needs deep tillage, he needs to know about soils and plant physiology as well as engineering. Similar cases can be stated for land leveling, planting, fertilizing, irrigating, insect control and the like. Yes, producing cotton today requires both intensive and extensive knowledge about a lot of things.

• **Research Teams** — Most Cotton Belt Experiment Stations now established scientific "teams" to tackle specific problems. Those teams represent all the disciplines involved in the problem, including agricultural economics. I think you'll agree that such teams have the potential for moving ahead further, faster, and with greater thoroughness than any lesser approach could do. A real potential is there for finding out not only if a new practice will *work*, and under what conditions—but also will it *pay*, how much, and under what conditions.

Now, I wonder if these research teams are not already "breaking new ground?" Prior to the formation of these teams, weren't they just clearing debris? But with the new ground cleared, they joined forces to *break it* as a team. With this joining of forces, it should not take long to break the ground and to begin harvesting the fruit from it.

But what about the annual forums that have been bringing together cotton and allied interests to discuss problems

and probe for solutions? What about this Mechanization Conference, which has been looking primarily at problems and solutions for machines and equipment? Have we just been clearing new ground—a job which must be done, of course, ahead of breaking? Is that job complete—and is this conference now ready to form a team with other groups to break that ground?

• **Merged Conference** — These questions have been considered to some extent for a couple of years. And it received close analysis and consideration by representatives of both the Mechanization and Cotton Production Conference Steering Committees. A joint meeting of the two full steering committees unanimously agreed that the ground-clearing operations are over, that we're now ready to merge the two conferences and break new ground as a closely coordinated team.

Experience in recent years shows clearly that mechanization considerations at this conference cannot be satisfactorily divorced from other production disciplines covered by the Production Conferences. And neither can the consideration of these disciplines be divorced from mechanization. The only feasible way is to look at the whole of the subject under consideration, to look at all the disciplines involved, whatever they might be.

The two committees also felt that the merged conference should not have a predetermined pattern for its programs, but should have full leeway for emphasizing whatever is currently appropriate whether it be engineering, entomology, agronomy or some other subject. With such latitude a breakthrough in farm equipment, for example, could be discussed immediately rather than waiting a year or longer for the arrival of a predetermined date to emphasize mechanization. The committees further agreed that mechanized demonstrations be discontinued except in years when there are new ideas or methods that need to be demonstrated.

The Engineers Workshop can be continued in conjunction with the merged conference as frequently as is agreed upon. There are already four technical groups meeting with the Production Conference. They are entomologists, pathologists, physiologists, and cotton geneticists and breeders. There is considerable informal discussion among individuals of these groups, and some groups work out agendas for joint program sessions where overlapping and inseparable problems and solutions are discussed. The participation of engineers in these discussions is highly desirable—and based upon your workshop program here yesterday morning, I'm sure that participation of other persons in your workshop is also desirable.

The first merged conference will be held in Memphis the second week in January, 1960. It will be called the Beltwide Cotton Production-Mechanization Conference, thus giving full recognition to the two existing conferences. Everyone who has been closely associated with the Production Conference, will recognize the merger as a step forward—a step that is good not only for the cotton industry, but also for the farm equipment and other industries closely associated with it.

I'm sure you join me in looking to the years ahead with confidence—confidence that the challenges in technology will be

met—confidence that the merged conference is an improved vehicle for bringing us together to discuss these challenges and their solutions. Together we shall break new ground.

Pink Bollworm Research

by DR. DIAL F. MARTIN

Entomology Research Division,
ARS-USDA, Brownsville, Texas.

The purpose of research on the pink bollworm has been to find ways to eliminate or reduce damage caused by the insect. Experience in other infested parts of the world and in isolated instances in the U.S. have shown that the insect can be extremely destructive. Our efforts to eliminate or reduce this damage have been directed along several lines.

• **Culture Control**—Culture controls have received considerable attention because of (1) the lack of an effective chemical control prior to the advent of DDT and (2) the insects pass the winter as long-cycle larvae in cottonseed or in knotty bolls and other crop residue in the field.

Theoretically, proper sterilization of the seed, gin trash, and hulls and complete destruction of overwintering larvae in the field should eliminate the insect as a pest. Progress has been made, but more efficient methods and better compliance with recommendations on the part of growers, ginners, and others are needed.

• **Early Stalk Destruction**—In the Lower Rio Grande Valley, where the crop is harvested early and there is opportunity to expose larvae to high soil temperatures, early stalk destruction has been very effective in reducing winter carry-over.

High suicidal moth emergence occurs in the fall, when stalks are destroyed early. A delay in stalk cutting not only results in a decreased mortality of the pink bollworm, but also an increased potential overwintering population due to a longer breeding period and to cooler fall temperatures which cause a higher percentage of the late-season larvae to enter the overwintering stage.

• **Stalk Cutters and Shredders**—In destroying stalks for pink bollworm control, high kill of larvae in green bolls, unopened locks, and knotty dried-up bolls is desirable. Many types of stalk cutter machines have been tested since 1951. Research on cutters and shredders is being continued to improve the efficiency of machines used for stalk destruction.

• **Winter Cultural Practices** — Winter survival was highest in tests at all locations where infested materials were allowed to remain on the soil surface, except at Brownsville. The high soil temperatures at Brownsville no doubt caused the high mortality at that location.

At such locations as Chickasha, Okla., Vernon, Lubbock, and Greenville, Texas, where the winter temperatures dropped to 15° F. or lower, survival was lowest in bolls exposed above ground, simulating standing stalks. Pink bollworms in bolls that fall to the ground from stand-

ing stalks before exposure to the low temperatures may be expected to have a high survival.

Survival at Brownsville, Port Lavaca, Waco, and Mount Pleasant was lowest in those cases where debris was plowed under in the fall. As the depth of burial was increased, the percentage survival decreased. Research underway at the present time indicates that soil type and moisture conditions also affect this survival.

• **Grazing** — Grazing with sheep and cattle as a means of removing pink bollworms left in the field after harvest indicates that 90 to 100 percent effectiveness may be obtained, depending on the number of livestock per acre and the length of time livestock are allowed to feed in the fields.

The danger to livestock from residues remaining on stalks, stems, and leaves as a result of chemical control programs during the growing season has not been determined.

• **Gin Studies**—Many pink bollworms are taken from the field in seed cotton and may be carried over one season to the next in seed cotton, seed, and/or gin trash. Therefore, kill in these products is important. During the period 1953-1956, studies were undertaken to find ways of increasing the mortality.

The simplest type of gin setup, which consisted of a separator, extractor feeder and gin stand, eliminated about 90 percent of the larvae in the seed; however, many live worms remained in gin trash. Removal and mortality of larvae were increased as additional equipment was added. The most elaborate setup resulted in more than 99 percent removal from the seed. In this setup the seed cotton passed through separator, drier, six-cylinder cleaner, bur extractor, six-cylinder cleaner, separator, seven-cylinder cleaner, extractor feeder, and gin stand. Trash from this cotton was heavily loaded with pink bollworms.

Formerly the trash was burned to destroy the worms remaining in the waste. As a result of research with high-velocity fans and pipings, specifications for fans and other equipment and wind velocities suitable to satisfy quarantine requirements were determined, so that trash may be removed from gins without further treatment.

The ginning operation eliminates most pink bollworms from the seed; however, a small percentage of live worms may remain. Additional treatments to meet quarantine regulations are required. Results of tests indicate that delinting by standard acid or mechanical delinting, plus flaming processes, caused 100 percent mortality. Also, the common treatment to hasten germination by immersing planting seed in hot water ranging in temperature from 160° to 180° F. for one to two minutes resulted in 100 percent kill of the worms in the seed.

The work in gins and oil mills has resulted in several changes in the pink bollworm quarantine requirements of the Plant Pest Control Division and the states of Texas and New Mexico. These changes are now saving cotton growers and processors of these states more than \$3 million annually. The changes are:

(1) Fans operated under certain specifications have been approved for treating gin trash and oil mill linters, motes and hulls. (2) Planting seed that

receives the approved hot-water treatment and/or mechanical-flame delinting may be certified for movement out of the quarantined area without further treatment. (3) Abolishment of the regulations requiring heat treatment of cottonseed at gins in Texas and New Mexico.

Additional research on gin and oil mill studies is pending the development of new equipment.

• **Chemical Control**—DDT, currently the only insecticide recommended for pink bollworm control, continues to be the most economical insecticide to use. Guthion, which has been used experimentally for the last several years, is highly effective against this insect. Sevin, a new insecticide tested in the field for the first time in 1957, appears very promising. Methoxychlor, Dilan, and EPN have long been known to be effective but have not proved competitive with DDT because of cost or other reasons. Several promising compounds are being tested in the field and laboratory at the present time.

• Cotton Exports Drop During 1958

U. S. AGRICULTURAL exports reached an estimated total of \$4,100,000,000 in the 1958 fiscal year that ended June 30, equal to the previous second high total reached in the 1952 fiscal year, USDA has announced.

An all time high record export value of \$4,700,000,000 was reached in fiscal year 1957.

Feedgrain exports rose 21 percent in fiscal year 1958 to a record total of \$400,000,000. Soybean exports climbed to a record \$215,000,000, up 10 percent over 1957. A heavy movement of apples to Europe helped raise fruit and fruit products exports to a high of \$260,000,000, up 13 percent over 1957.

Exports of unmanufactured tobacco held steady at \$340,000,000.

Declines in exports of cotton, wheat and rice made up about four-fifths of the 14 percent decline in total exports from 1957. Cotton exports dropped from \$1,116,000,000 in 1957 to \$850,000,000 in 1958 due to large foreign stocks of cotton and cotton products, increased foreign production, and leveling of foreign consumption. Foreign purchases of U.S. cotton had been unusually high in 1957 under the Commodity Credit Corporation export program.

Last year's record wheat crop in Europe primarily accounted for the \$236,000,000 drop in wheat and wheat flour exports. Rice exports fell from \$171,000,000 in 1957 to \$95,000,000 in 1958. Rice exports were unusually high in 1957 when large quantities moved out of CCC inventory under special export programs.

Other export commodities that declined in 1958 were fats and oils, meats, dairy products, and vegetables and vegetable products.

Agricultural exports under special government programs declined 36 percent from 1957. Most reduction was in barter sales and foreign-currency sales under Public Law 480. Non-program exports, including credit sales, rose slightly. The share of exports outside special programs advanced from 59 percent in 1957 to 69 percent in 1958.

• ACMI Committee Heads Named

SEVENTEEN LEADERS of the textile industry have been named to head committees of the American Cotton Manufacturers Institute, central trade association of the textile manufacturing industry.

The committees plan activities for the benefit of the industry generally through ACMI, which includes it its membership cotton, man-made fiber and silk mills.

AMIC President Halbert M. Jones of Laurinburg, N.C., has announced these appointments:

Fred M. Lyon, president, Opp & Mico-las Cotton Mills, Opp, Ala., audit com-mittee.

A. B. Emmert, vice-president, Dan River Mills, Inc., Danville, Va., repre-sentative on board of appeals.

James A. Chapman, Sr., president, In-man and Riverdale Mills, Inman, S.C., and ACMI's first vice president, budget, finance and policy committee.

Ellison S. McKissick, treasurer, Alice Manufacturing Co., Easley, S.C., cotton committee.

C. A. Cannon, president, Cannon Mills Co., Kannapolis, N.C., cotton policy com-mittee.

F. E. Grier, president of Abney Mills and chairman of the board, Erwin Mills, economic policy committee.

M. Earl Heard, vice-president, West Point Manufacturing Co., West Point, Ga., education committee.

W. J. Erwin, president, Dan River

Mills, Inc., foreign trade committee.

E. M. Fuller, Greenwood Mills, Inc., New York, representative on the gen-eral arbitration council of the textile industry.

Robert M. Schwarzenbach, president, The Schwarzenbach Huber Co., New York, man-made fibers and silk com-mittee.

William E. Reid, president, Riegel Textile Corp., New York, market devel-opment and expansion committee.

J. M. Cheatham, president, Dundee Mills, Inc., Griffin, Ga., and ACMI's second vice-president, membership com-mittee.

L. G. Hardman, Jr., president, Har-mony Grove Mills, Inc., Commerce, Ga., and immediate past president of ACMI, national affairs committee.

R. Arthur Spaugh, president, Wash-ington Mills Co., Winston-Salem, N.C., public relations committee.

John P. Elting, director of research, Kendall Cotton Mills, Paw Creek, N.C., research and technical service committee.

James L. Rankin, president, Ewing-Thomas Corp., Chester, Pa., Tax committee.

Raymond L. Swetenburg, vice-presi-dent, Chicopee Manufacturing Corp., Gainesville, Ga., traffic committee.

BRADEN STEEL IMPLEMENT SHEDS



When the cost of a Braden steel fireproof implement shed is compared with the cost of an insured wooden implement shed of the same size—you will find the sturdy, easy-to-erect Braden Steel Implement Shed is by far the best buy Write today for prices

**GRAIN STORAGE BUILDINGS — SEED HOUSES
GIN BUILDINGS — COTTON HOUSES — WAREHOUSES
MACHINE SHOPS — UTILITY BUILDINGS
FEEDING AND LOAFING BARN**

MAIL THIS TODAY

PLEASE SEND INFORMATION TO ME ABOUT

(TYPE OF BUILDING YOU ARE INTERESTED IN)

STEEL BUILDING ☐

ALUMINUM BUILDING ☐

SIZE
IN
FEET

_____ WIDE, _____ LONG, _____ HIGH

NAME _____

ADDRESS _____



BRADEN STEEL CORPORATION

**1007 EAST ADMIRAL
TULSA 1, OKLAHOMA**

U.S. Edible Oil Exports Drop Sharply in June

U.S. exports of edible oils in June, ac-cording to preliminary data, equalled the volume of June a year earlier. Cumulative exports in the October 1957—June 1958 period, however, were down nearly 30 percent from the first nine months of the 1956-57 marketing year, USDA says.

Oilseed cake-and-meal exports in June were well below those of June 1957. And the cumulative total for the first nine months of the current marketing year was about 40 percent less than in Oc-tober-June 1956-57.

The June volume of exported edible oils was but one-half that of May, when a heavy tonnage of soybean oil went to Spain under Title I of P.L. 480 sales. Exported oilcake and meal in June ex-cceeded that of May by about one-fifth.

U. S. soybeans inspected for export from Oct. 1, 1957, through June 27, 1958, totaled 70,300,000 bushels, com-pared with 69,500,000 bushels through June of 1956-57. Soybean inspections through July 25, totaled 77,000,000 bushels, 2,600,000 bushels above those of the corresponding 10-month period of 1956-57.

Japan Allocates Foreign Exchange for Imports

The Japanese Ministry of Interna-tional Trade and Industry announced on July 21, 1958, that foreign exchange would be allocated for the purchase of waste cotton, according to USDA an-nouncement. The allocation is expected to total \$5,400,000, which will permit imports of 26,600,000 pounds of this cotton. Applications will be accepted from cotton traders and manufacturers every Tuesday until Sept. 15, 1958.

Fifty percent of the allocation will be spent for "sterling area" cotton to be used for wadding. The rest will be used to buy cotton for other non-spinning uses, and will be imported on a global basis.

Why

History

Is My Hobby

By Thomas Ancrum

Thomas Ancrum is a member of a pioneer South Carolina family which helped to make some of the history which he finds so interesting. He spent more than 40 years in the cotton oil industry, managing the Southern Mill at Camden when he retired. He has contributed many historical articles to The Cotton Gin and Oil Mill Press and other publications.

WHY has history been my hobby? A better question might be—why is history one of my many hobbies?

Since I was a barefoot boy, fishing, hunting, and all forms of sports have given me many thrills. To have a big bream or bass strike your lure, or the challenge of bagging a partridge, duck, dove, turkey, or deer in the woods or swamps, makes you feel young, even as old age begins creeping up. And, to witness an exciting polo match, a close baseball game, a long touchdown run, or to shoot a few par holes in a golf match, all add up to the enjoyment of life, which no one should miss. I like them all.

Spending a lifetime in historic Camden, S.C., with its many interesting events dating back some 225 years, together with its many interesting legends, is bound to make one become interested in history.

Having been an avid reader all my life and not having missed a daily paper since the Russian-Japanese War at the turn of the century, I have been interested in historical subjects.

With my limited ability, I have no reason to be attempting historical articles, but so long as newspapers and magazines continue to publish them, I shall continue to write them, even if they are amateurish. My articles have all been confined to Camden and South Carolina events. They go hand in hand.

Perhaps reviewing the many historical events of this section will explain why history is my hobby.

When the first white settlers reached this section, it was overrun by the Catawba, Wateree, Cherokee and Waxhaw Indians.

King Haigler, who led the Catawba tribe, was very friendly and cooperated with the white settlers. To this day, the weather vane over the city hall, a replica of the chief, with drawn bow and arrow, reminds the town of an early friend. The weather vane was cut from metal by a Frenchman, J. B. Mathieu, in 1826.

Following the usual skirmishes and battles with Indians, Camden began developing into an important town. It was on the headwaters of the Wateree River, and served as a port of entry for goods shipped from the coast, as well as an important port for the distribution of

local products. Camden soon became a distribution center for interior South Carolina, and enjoyed trade over a large area.

Realizing the importance of the town, the British during the Revolution, fought many battles in and near Camden trying to gain control of the point.

Nearby were many bold flowing creeks that furnished waterpower for wheat and corn mills, as well as saw mills and tanneries. To control these water mills meant food for the armies.

Lord Cornwallis and Lord Rawdon occupied Camden, and they were opposed by General Gates (hero of the Battle of Saratoga), General Greene, General Sumter and General Marion. General Baron De Kalb came over from Europe to help the Americans and was killed in the Battle of Camden. He is buried in front of the Presbyterian Church, and the monument to him was designed by Mills, famous American architect. The laying of the cornerstone was presided over by the Marquis de Lafayette, who arrived from France to help the American cause for freedom. Lafayette planted a cedar tree on his visit to Camden and it can still be seen in front of the courthouse.

President George Washington visited Camden after the Revolutionary War, and was lavishly entertained. Seventeen toasts were offered at one banquet, but the ladies retired after the third toast. Washington offered the fifteenth toast: "The town of Camden and prosperity to it." He then retired. While here, he visited the battlefields and the monument to Baron DeKalb, and the redoubts erected by the British.

The first fair in America was held in Camden in 1875, and—"it was decreed by King George III by the Grace of God, of Great Britain, France and Ireland, King, Defender of Faith,"—and stated that the fair was to be "holden", twice a year. Six acres were set aside for the fair grounds, and these grounds are municipal property today.

• **Later History**—Camden did its share in the War of 1812, and again in the Mexican War of 1848. Colonel Dickerson was killed when leading the storming of Churubusco Heights. There is a monument to him in one of the city parks.

Camden more than did its share in the Confederate War. A town of 2,500 at the time, it furnished six generals to the Confederate Army. In one of the parks is a Grecian type pergola with six columns, and each column has a bronze nameplate in their memory. Sherman's troops occupied Camden and before leaving burned many public buildings and residences. Camden furnished its share of soldiers for the Spanish-American War also.

In World Wars I and II and the Korean War, again Camden had a most favorable record. Three of its citizens were awarded the coveted Congressional Medal of Honor, the highest decoration our country can bestow. A fourth holder of the Medal of Honor lived here as a

(Continued on Page 39)



THIS is the ancient headstone on the grave of Agnes of Glasgow. The historical marker has recently been added to help seekers locate the rather obscure resting place of this legendary figure.

Breeders Race To Beat the Bees

COTTON BREEDERS are hiring extra help at the U.S. Cotton Station, Shafter, Calif., in a race with the bees. The race is to see whether men or the busy insects will determine California's cotton varieties of the future.

If the breeder loses, says the Fresno "Bee"—a newspaper that takes no sides in this race, regardless of its name—a whole year's work goes up in smoke. The breeder cannot obtain pure test seed unless he keeps the bees from pollinating the cotton used in research.

Every morning before the bees get up, the breeding staff of the Station, assisted by a group of high school youths, visit the seven-acre breeding nursery and tie up the day's bloom so the bees which later are sure to follow cannot get inside and deposit "unknown parentage."

• **Visit 75,000 Plants** — More than 75,000 plants are visited during the flowering season, each of them many times, by John H. Turner, Jr., the director of the Station, and his team of breeders, including Scott McMichael, Merrill Lehman and Robert Miravalle.

The breeders first tag about 5,000 plants which appear to be the most superior. Half the plants will have to be cast aside later because of successful attacks by diseases. Then the high school boys and girls follow and tie up the blooms on the plants which have been tagged. On the 2,500 plants which remain, breeders estimate half will be lost in the ginning process. Tests on what is left over determine whether the seed which is developed is worth replanting.

The breeders get their plants in two ways: through self pollination and through hand crossing, Turner explained.

Many tests are behind the breeders by the time the seeds are allowed to

self pollinate. At this point the breeders are satisfied there exists a possibility of developing a newer and better strain of cotton through the seed to be self pollinated. They know these may be the seeds of the future—the seeds which eventually may find their ways into California's cotton farms.

But long before self pollination is allowed the original seeds undergo changes through crossing by hand.

Turner estimates there are more than 70 types of cotton grown on the experimental plot. Some of the seed came from Asia, some from Egypt, and others from Peru, Mexico, Yugoslavia and Russia.

Seed Crushers' Resolution

International Association of Seed Crushers, with headquarters in London, is circulating a resolution on bills of lading. Adopted at the Brussels meeting last June, the resolution asks ship owners not to change bills of lading without previous negotiations with shippers and receivers.

Study Made of Color Changes

"Color Change in Raw Cotton Related to Conditions of Storage" is the title of a paper published in Textile Research Journal recently. Reprints are available from the authors, Dorothy Nickerson and Josephine J. Tomaszewski, USDA Agricultural Marketing Service, Washington.

■ **PAUL T. GILLESPIE** is resident manager, Memphis, for E. F. Hut-ton & Co., brokers. He succeeds O. A. McFALL, who has been in the investment business 55 years. Now located in the Peabody Hotel, the firm will move in October to 81 Madison Building.

• Missouri Tours Will Show Cotton Work

THE 1958 RESULTS of the University of Missouri's expanded research program in Southeast Missouri will be shown to farmers Sept. 10-11.

Joe Scott, University Extension field crops specialist with headquarters at Sikeston, has announced that plans have been completed for four fall tours of Bootheel experimental fields. More actual results of experimental work can be seen this fall than on any previous field event held in southeastern Missouri.

The program for the field days gets underway at 9 a.m. Sept. 10 at the Sikeston field, Scott said. It continues the same afternoon with a meeting at the Diehlstadt field at 1 p.m.

On Sept. 11, a morning tour will be held at the Malden field and an afternoon tour at the Bragg City field, starting at 9 a.m. respectively.

At Sikeston, cotton variety test plots will be visited and discussed by University cotton breeding specialists. Differences in the maturity and fruiting ability of varieties will be pointed out.

New this year at the Sikeston field is an experiment involving the use of gibberellic acid. The plant stimulant is being used to see if it increases the fruiting and maturity of cotton varieties.

Other cotton research projects to be viewed and explained include those on fertilization and weed and insect control.

In other field crops work, visitors will be brought up to date on studies on soybean and corn varieties, weed control in beans, insect control in corn, and pastures.

At Diehlstadt, the research field is located on a light sandy soil uniformly infected with fusarium wilt and the root knot nematode. There, cotton variety tests are showing excellent results and visitors will be able to see which varieties are standing up under attacks from the wilt-nematode complex. Cotton fertility experiments and a soybean variety test are also carried out on the field.

In addition, University entomologists are conducting fumigation studies on soybeans, cotton, fruits, and vegetables such as sweet corn, cantaloupes, peppers, and watermelons.

At the Malden field, on a sandy soil, cotton irrigation studies are being conducted along with variety and fertility tests. Soybean variety trials are also being carried out on the Malden field.

The Bragg City field is on a heavy clay soil, commonly called gumbo, in Southeast Missouri. Cotton variety, irrigation, and fertility studies will be visited as well as plots dealing with fertility work on corn and soybean varieties.

Dr. Conrad To Present Paper

Dr. C. M. Conrad, USDA Southern Utilization Research and Development Division, New Orleans, will present a paper on mechanical properties of chemically modified cotton at the Textile Institute Conference in September. The meeting will be at Gothenburg, Sweden. He also will visit research and textile organizations in Europe.

WE INVITE YOUR COMPARISON

For storing that valuable equipment when not in use—save time and money with an **ECONOMICAL STEEL UTILITY BUILDING** from The Murray Company of Texas, Inc.—a name that stands for over a half century of dependability and reliability.

A Murray steel frame and corrugated steel roofing and siding combine to make one of the most economical and long-lasting structures possible.

All materials used specifically with sound conservative engineering practices.

A monorail or traveling crane can be installed at little extra, and just think how handy this will be when overhaul time comes around.

Experienced erectors and ease of application cuts erection time to a minimum. All buildings are completely bolted and can be readily moved and re-erected on a new site without loss of material.

Why not have the best quality and the most economy—investigate the many fine features of a **MURRAY** dependable steel building, tailored to meet your requirements.

For Sales and Earnings

Procter and Gamble Co. Sets New Records

Procter and Gamble Co. on Aug. 21 reported record sales and earnings for the fiscal year ended last June 30.

Consolidated net sales of Procter & Gamble and its subsidiaries totaled \$1,295,163,269 for the year. This was the third straight year of sales above the billion-dollar mark. Sales last year were \$1,156,389,726.

Consolidated net earnings for the year amounted to \$73,196,618. Earnings last year totaled \$67,807,376.

These earnings were equal to \$3.56 per common share compared with \$3.44 per share in 1956-57.

In a letter to P&G's 59,000 shareholders, Chairman of the Board Richard R. Deupree and President Howard Morgens said Procter & Gamble's "strong organization, high-quality products and sound planning" provide a sound basis for confidence about the years ahead.

While pointing out that the U.S. business recession did have an effect on P&G's business, the executives said the company was able to move ahead in many different areas of its business.

"One of the strengths of the company, with its wide diversification of products," Deupree and Morgens said, "is that it can face economic conditions such as we had in 1957-58 and still have its over-all business move ahead on a sound and healthy basis."

The company engaged in a "heavy capital investment program" during the

year to construct additional production capacity, to provide more laboratory facilities for technical research, and to install new equipment for further improvements in the cost and quality of its products.

Procter & Gamble introduced several new products during the year, and about two-thirds of P&G's household business today is in products not even in existence 12 years ago. They said continued introduction of new products "is absolutely essential if we are to maintain our position in the vigorously competitive fields in which we operate."

A letter to shareholders reported the completion of three new P&G plants outside the U.S.—a shortening plant in Canada and synthetic detergent plants in Peru and the Philippines. The company now has manufacturing facilities in 13 foreign countries and sells on an export basis throughout most of the free world.

Cotton Techniques Studied By Marketing Specialists

Market research specialists from five nations, engaged in cotton market expansion programs, are making a three-week study of market research activities in the U.S.

The group is meeting Aug. 20-29 in Memphis where staff members of the Nation Cotton Council are outlining the Council's market research techniques, procedures, and specific problems. Council representatives also are explaining other Council programs.

After completing the Memphis ses-

sions, the visiting specialists will spend two days in Washington for briefings on market research programs conducted by the Bureau of the Census, USDA and Bureau of Labor Statistics. Two days are scheduled in New York for further explanation of the Council's program and for visits to textile market research offices.

The market research specialists are engaged in cotton market development programs in their home countries, sponsored by industry organizations and USDA, under the general supervision of Cotton Council International.

The visiting specialists are: Dr. J. Achthoven, Netherlands Cotton Institute, Arnhem, The Netherlands; Dr. Ralph Cohen, Italian Cotton Institute, Milan, Italy; Jan Fresco, Cotton Council International, Arnhem, The Netherlands; A. Grielen, French Cotton Syndicat, Paris, France; Aurelio Jordi, Spanish Cotton Textile Service, Barcelona, Spain; Dr. H. Kuhlmeijer, Cotton Council International, Hengelo, The Netherlands; and Mrs. Denise Van Schil, Belgium Cotton Institute, Brussels, Belgium. They are accompanied by Raymond Steinbach, European director of Cotton Council International, Paris, France.

New Book

COTTON CLASSIFICATION ISSUED FOR '58-'59

The Cotton Insurance Association of Atlanta has published its Classification of Cotton Compresses, Warehouses and Wharves for the 1958-59 season.

HIGH EFFICIENCY DUST COLLECTORS AND TRAVELING TELESCOPES

NEW LOOK

IN TRAVELING TELESCOPES

- STURDY STEEL TRACK
- ONE PIECE HORIZONTAL PIPE
- ANGLE RING CONNECTIONS
- TELESCOPE BARRELS UP TO 12 FOOT LENGTHS IN 1 PIECE
- ALL METAL BOOTLESS TYPE SWIVEL HEAD
- SEALED BALL BEARING ROLLER HANGER
- BALL BEARING ROPE PULLEYS

HIGH EFFICIENCY CYCLONE DUST COLLECTORS

To help solve your problems concerning dust and other gin waste . . . install HIGH EFFICIENCY CYCLONE DUST COLLECTORS. Small diameter cyclones are MORE EFFICIENT than large cyclones. However, because of their low capacity, multiple units consisting of 2 or 4 collectors must be installed in most cases.

This collector MUST BE PROPERLY SIZED: (Air Reading should be taken where possible) to do this, the size and make of fan, type fan blade, fan speed, diameter of pipe on discharge side of fan, and type of material the fan is handling must be known.

We highly endorse this collector.

ANDERSON & BIGHAM SHEET METAL WORKS

GIN, MILL AND ELEVATOR WORK

416-424 AVENUE L

PHONE PD 5-5281

BOX 1438

LUBBOCK, TEXAS

as viewed from

The PRESS Box

• Leaders Confer and Tour Cotton Areas

SPECIAL MATERIAL in this issue of The Press summarizes the information presented at the 1958 Beltwide Cotton Mechanization Conference, held in Brownsville, Texas. Data in these papers will be useful to many persons, and will be distributed as the Summary-Proceedings of the Conference by the National Cotton Council.

Two tours, one of the Pink Bollworm Research Center at Brownsville and the other of cotton production, processing and shipping facilities in Mexico and in the Texas Lower Valley, supplemented

the Conference sessions. They gave visitors from the U.S. Cotton Belt and other countries a revealing picture of present and potential developments.

Readers will be interested in articles

in this issue related to Conference material. These include a staff article about "The Cotton Belt We Gave Away," a report on Brownsville's Cotton Carnival, and the announcement that, in 1960, the Cotton Production Conference and the Mechanization Conference will be merged into a single meeting, to be held at Memphis in January.

• Man-Made Fiber Production

WORLD production of man-made fibers totaled 6,339,000,000 pounds in the 1957 calendar year, according to the Textile Economic Bureau. This was the fifth successive year in which world production rose to a new record level. Man-made fiber production in 1956 was 5,918,000,000 pounds. The 1957 world total was composed of 4,969,000,000 pounds of rayon, 467,000,000 pounds of acetate, and 903,000,000 pounds of non-cellulosic fibers. World rayon production in 1957 increased four percent over a year earlier, acetate production was about unchanged from the 1956 level, while output of non-cellulosic fibers was up 33 percent. U.S. production of rayon and acetate totaled 1,139,000,000 pounds in 1957, equivalent to 21 percent of the world total compared with 22 percent a year earlier and 25 percent two years ago. Japan was the second largest producer with 967,000,000 pounds or nearly 18 percent of the world total.

• Research Vital to Nation's Future

A RECORD total of sales and investment during the early 1960's will be in new products growing out of research, according to Walter M. Kelly, president of Commercial Factors Corp. He says that by 1960 more than 10 percent of manufacturing sales will be in new products not on the market in 1956. A recent survey reported that industry spent more than \$7 billion last year on research and development to discover and develop new industrial products, processes and equipment. Indications are that total expenditures for industrial research and development during 1958 will be even greater, perhaps as much as \$8 billion.

• New Fiber Crop

THE SNAKE PLANT looks promising as a new coarse fiber crop for Florida, USDA reports. This semiwild perennial, *sansevieria*, is being tested as a source of cordage fiber, all of which the U.S. now imports.

• Drycleaners Complain

DRYCLEANERS are complaining, again, that many cotton garments contain dyes that fade in drycleaning although they may be laundered without fading. When women send dresses to the drycleaner, after having washed them at home, they are shocked to have them fade. National Institute of Drycleaning is receiving several hundred dresses monthly from members who have had customers complain.

• Paradise for Taxpayers

A PARADISE FOR TAXPAYERS has been found. It's Alberta, Canada. Half a million qualified residents of the province are receiving dividends from oil royalties instead of paying taxes. (Don't move there—you have to be a 10-year resident and citizen to qualify).

DIRT LOCKED OUT! GREASE LOCKED IN!



Fafnir Plya-Seal Wide Inner Ring Ball Bearings



FEATURES

1. Plya-Seal of resilient Buna N rubber-coated fabric insures proper "follow-up" contact
2. Seal rides in firm contact on ground outside diameter of inner ring
3. Close-clearance of inside metal shield with outside diameter of inner ring provides rigid support for seal
4. Flared lip of Plya-Seal won't push in
5. Generous space for lubricant
6. Wide inner ring for extra shaft support
7. Fafnir-originated self-locking eccentric-cam-design collar
8. Relubricatable

Fafnir now offers ball bearings and ball bearing units designed expressly for applications where slow-to-moderate shaft speeds and exposure to excessive lint, dust, dirt, or moisture combine to shorten bearing life.

These factory-prelubricated bearings are equipped with tough, contact-type Fafnir Plya-Seals — the "best protection yet" against bearing killers. Contaminants are locked out . . . grease locked in.

Both relubricatable and non-relubricatable types are available . . . dimensionally interchangeable with other Fafnir Sealed Ball Bearings. Write for descriptive bulletin. The Fafnir Bearing Company, New Britain, Conn.

FAFNIR
BALL BEARINGS

MOST COMPLETE LINE IN AMERICA



Why History Is My Hobby

(Continued from Page 35)

boy and is now Adjutant General of South Carolina.

For 75 years Camden has been an important tourist center, offering a fine golf course, polo fields, race tracks, and a winter training center for race horses, steeplechase horses and polo ponies. The Carolina Cup race which is run each spring is witnessed by large crowds. A recent check revealed license plates from over 30 states. Distinguished visitors have witnessed the Cup Race, including William G. McAdoo, Franklin D. Roosevelt, Jr., James H. Byrd, former U. S. Supreme Court Justice and Assistant to the President; Bernard M. Baruch, advisor to six Presidents; as well as governors, congressmen and leaders in business and social life.

Tourists take a lot of interest in historical Camden, and its legends covering two centuries. They often visit the historic spots, and scenes of legends, such as the "Agnes of Glasgow" gave. The legend tells that this Scotch lassie followed her lover to America. He was with Cornwallis' British troops, and an Indian brought her from Charleston to Camden in a canoe. She became ill from swamp fevers and died shortly after reaching Camden and before seeing her lover. British soldiers buried her near the spot where Cornwallis had his headquarters. A crude stone with its inscription cut with British bayonets marks the grave.

Others are astounded that Abraham Lincoln had a brother-in-law buried in Camden, who had been an officer of the Confederate Army. He was Dr. Robert Todd who had married a Camden girl.

• **Not Even Any Pullets** — They are interested in the fact that twice married William McWillie, born near Camden, was the father of 21 children, and 12 of them were daughters, all born in succession. McWillie later moved to Mississippi, where he achieved fame and was elected governor of that state. Also born in the same neighborhood was John G. Richards, father of nine girls, who was later elected governor of S.C.

The reverse of this situation, the lack of daughters, is the story at the old Bineham or Baruch house, built about 1800, and dismantled a few years ago. This was the home built for Sheriff Bineham and was later the home of Dr. Baruch, father of Bernard M. Baruch. It is said that a daughter was never born in that house during the 150 years it was occupied by various families, and the owners said that the very poultry on those premises never produced pullets.

The Camden tourist colony has had many distinguished visitors. John Galsworthy, the English writer; Ben Ames Williams, the American writer; Mrs. Theodore Roosevelt, wife of President Teddy Roosevelt; Von Meyer, Secretary of the Navy; Lane, the Secretary of the Interior, were among them. Teddy Roosevelt, Jr., did considerable hunting here with Camden friends. John R. Todd, who had charge of rebuilding historic Williamsburg, Va., for Rockefeller and who later built Rockefeller Center and Radio City in New York, has owned a residence here since 1910. He died a few years ago, but his family continue to occupy the home.

So, having been raised in a community with so much historical background,

it is only natural that history has become one of my hobbies. However, it is not my idea to live in the past, and I am in accord with the words of Gen. James G. Harbord, of World War I fame, who said:

"The roads you travel so briskly lead out of dim antiquity and you study the past chiefly because of its bearing on the living present and its promise of the future."

Roy Rogers Dies at Taft

Roy Rogers, general manager of Taft Cotton Oil Co., Taft, Texas, died suddenly on Aug. 8 following a heart attack. Rogers had been associated with the oil mill industry in Texas for many years.

Georgia Town Honors Denim

Canton, Ga., observed Denim Day Aug. 18 with a carnival sponsored by the Canton Retail Merchants' Association. The observance was a part of National Denim Week and a tribute to Canton Cotton Mills, a leading denim manufacturer.

Mrs. Martin Retiring

Mrs. Florence Martin retired on Aug. 15 after 17 years as a member of the office staff of National Cottonseed Products Association in Memphis. She made many friends among crushers and others in her work in the office and at NCPA meetings.

Mrs. Martin is retiring in order to care for a sister who is in bad health.

FIRST in Speed

FIRST in Service

FIRST in Location

for your

**COTTON
LOANS**



1st

**NATIONAL BANK
IN DALLAS**

MEMBER FDIC

Since 1875... the Cotton Man's Bank

Classified Advertising

RATES AND CLOSING DATES: Ten cents per word per insertion. Include your firm name and address in making word count. Minimum charge \$2.00. Copy must be in our hands by Thursday morning of week of issue. Please write plainly.

Oil Mill Equipment for Sale

FOR SALE—New V. D. Anderson Expeller parts. New Fairbanks-Morse 16" x 12", 80,000 lbs., suspension bearing pipe lever hopper scale. Oil refining equipment, oil screening tank, Vort oil chiller, 42", 36", and 30" filter presses, York ammonia compressors, Carter gyrator screen, scale tanks, complete with Toledo scales, Richardson scales, meal coolers, Roots-Connorsville and Hoffman blowers, bucket elevator legs, pumps, and motors. Contact Lee Atherton of Archer-Daniels-Midland Co., Minneapolis, Minnesota.

FOR SALE—Filter presses, screening tanks, single and twin motor Anderson Super Duo expellers, 141-saw linters, baling presses, car unloader, Bauer #199 seed cleaners, Bauer #153 and 403 separating units, bar and disc hullers, 72" and 85" stack cookers, 72" 4-hi stack cookers for French expellers with enclosed drive, 42" and 60" rolls, boilers, hydraulic press room equipment.—V. A. Lessor & Co., P. O. Box 108, Fort Worth, Texas.

OIL MILL EQUIPMENT FOR SALE—Rebuilt twin motor Anderson high speed expellers, French screw presses, stack cookers, meal coolers, four-inch inch conditioners, filter presses, oil screening tanks, complete motor and pressure or single phase expeller mills.—Pittcock & Associates, Glen Riddle, Pennsylvania.

FOR SALE—French vegetable oil earth extraction unit, 20 ton capacity complete with still, filter presses, pumps, heat exchangers, condensers, evaporators, tanks, motors, and electrical starting equipment. Purchased new and installed in 1949. Good condition. Contact Lee Atherton, Archer-Daniels-Midland Co., Minneapolis 2, Minn.

INSPECTIONS and appraisal. Dismantle and installation.—Oscar V. Shultz, Industrial Engineering, Phone Butler 9-2172, P. O. Box 357, Grapevine, Texas.

FOR SALE—2 French 4-cage screw presses 9" extensions, 75 h.p. motors. French screening tank. Filter presses. French 72" cooker Franco Drive—72" cooker Hypoid Drive. D-K 5-high 90" all-steel cooker. Carver 141-saw linters. Bauer 199 seed cleaner. Bauer 198 hull beater. Butters 141-saw machines. Carver 48" bar huller. 36" attrition mills. No. 8 cake breaker. 3 single-bake, up-packing, all-steel linter presses. Electric motors, starting boxes and switches. Steel sand and boll reel.—Sproles & Cook Machinery Co., Inc., 189 Howell St., Dallas, Texas. Telephone RI-7-5958.

FOR SALE—5 used Clipper cleaner treaters mounted on trucks ready to operate. Cleaners could be used in delinting plants.—J. B. White, Box 1023, Waco, Texas.

FOR SALE—All-steel vertical oil storage tanks. 16—11'0" O.D. x 21'0" high, 8—20'0" O.D. x 20'0" high, 2-35'0" O.D. x 47'2" high. Including manholes, ladders and walkway. All welded. Also 1-100 h.p. and 1-80 h.p. Erie City boilers and 1-60 h.p. Cleaver-Brooks boiler. All 150 lbs pressure and complete with natural gas burners and auxiliary equipment. Cleaver-Brooks boiler purchased new in 1954. All other items purchased new in 1949. Used only short time. Contact Lee Atherton, Archer-Daniels-Midland Co., Minneapolis, Minn.

FOR SALE

FRENCH OIL MILL:

Vertical 4-section, 2-compartment cooker (Digester), approximately 7' diameter x 8' high; power agitator with large Falk gear reducer; Allis-Chalmers 40 h.p. enclosed line start motor, 220-440/60/3/1770; French hydraulic 5,000 pound grease press, 30" inside diameter; union steam driven hydraulic 10 x 1 1/4 x 12 pump. Price \$6,000 before removal.

HERMAN E. BETINSKY

Phone: NOrmandy 5-2409
36th St. and River Rd. Camden, N.J.

FOR SALE—French screw press with starting equipment. Reducer drive. French settling tank with oil pump and speed reducer. Overflow bin. 2 French cooker rings. A two bushel Richardson automatic scale. Contact Swift & Company Oil Mill, Hixtheville, Arkansas.

FOR SALE—Sutobilt blower, size 14 x 37, with 50 h.p., 220-440 volt motor and drive, almost new. Also Fort Worth portable pneumatic seed unloader with 125 h.p. Le Roi engine. Write Producers Cooperative Oil Mill, P. O. Box 1886, Oklahoma City, Oklahoma.

Gin Equipment for Sale

FOR SALE—Located at Bradley, Arkansas, one good Continental 10' bur machine with overflow conveyor and steel supports, \$1,500.—Bill Smith, Box 604, Phones OR-4-9626 and OR-4-7847, Abilene, Texas.

SPECIAL BARGAINS—5-80 saw F-3 brush gins, excellent condition. 4-80 saw late model Murray glass front gins. Bur machines: One righthand and one lefthand 14' steel Hardwicke-Etters. 1-14' Murray, 14' and 10' Lummus. Steel cleaners: 4-cylinder Continental incline, 5- and 7-cylinder Hardwicke-Etters, 6- and 12-cylinder Stacy, 4-cylinder 8' and 12-unit Lummus Thermo, 3-cylinder Mitchell, 6-cylinder Hardwicke-Etters and Murray air lines. Continental and Murray lint cleaners, 48" Lummus and 52" Stacy separators. Mitchell convertible and super units in 60" and 66" lengths. Six stand Lummus conveyor distributor. Lummus and Continental press pumps, 12", 15" and 16", 9" screw elevators. New Government type tower driers. New and used fans, belting, conveyor trough and a general line of transmission equipment. Electric and gas power units. For your largest, oldest and most reliable source of used and reconditioned gin machinery, contact us. Call us regarding any machinery or complete gin plants which you have for sale or trade.—R. B. Strickland & Co., 13-A Hackberry St., Phone: Day or Night PL-2-8141, Waco, Texas.

FOR SALE AT SPECIAL BARGAIN PRICES—Four Continental 80-saw F-3 brush gins with bright fronts, new brushes, and completely reworked and painted at \$1,250 each. Four late model 80-saw Murray gins, new ribs, reworked and painted, 6" mote conveyor, glass fronts, direct connected, complete and ready to gin at \$750 each. One 1-type Hardwicke-Etters cleaning system consisting of one 50" 5-cylinder cleaner with blow box, by-pass valves and one 7-cylinder 50" cleaner and all connections.—Kimbell used Gin Machinery Co., Box 456, phone 3372 or 3351, Earth, Texas.

FOR SALE—Lint cleaners: One Lummus 1957 comber, 5-80 1951 Murray saw type complete, 4-80 Lummus Jets complete with Hartnell fan and 30 h.p. motor. Gins: 4-80 Continental F3 brush, 5-80 Continental F3 AB, 5-90 Gullett, 5-80 Model C brush with good saws and ribs and metal brushes, 4-80 Continental Model C brush with 30 fronts, 3-80 Model C brush, 12-80 glass front Murays and lint flue for 4, 4-80 glass front Lummus and lint flue, 1-80 Continental Model E brush, 1-80, 1949 Lummus, Huller cleaner feeders: 5-80 Continental 4X with hot air ducts for drying and grid bars under cleaners, 5-80 Hardwicke-Etters with 4-cylinder aftercleaner, 7-80 Continental Double X, 4-80 Lummus LEF's, 1-80 Lummus MEF. Cleaners: 1-52" 8-cylinder V-drive Stacy, 1-72" 6-cylinder Murray blow-in type, 1-8" wide, 6-cylinder Lummus, 1-52" 4-cylinder Continental, one 7-cylinder 50" V-drive blow-in type Hardwicke-Etters, one 7-cylinder 52" flat belt blow-in type Murray, one 5-cylinder 52" V-drive blow-in type Murray, 1-66" 6-cylinder Mitchell Jembo. Driers: one 14-shelf Tower, 3 Murray Big Reels, one 16-section and one 12-section Lummus Thermo-cleaner. Separators: 1-72" Murray, 1-52" Continental, 1-52" Gullett, 1-72" Lummus. Bur machines: 2-10' Wichitas with 3-cylinder aftercleaners, 1-10' Continental with long overflow conveyor and steel platform, 1-14' steel Hardwicke-Etters with steel platform, 1-14' all-steel, V-drive Lummus, 1-10' all-steel Lummus with 5-cylinder built-in after cleaner, 1-14' Stacy. Condensers: 2-72" 5-discharge Hardwicke-Etters, 1-72" 5-discharge Continental. Burners: Two Hardwicke-Etters, one Murray, one Mitchell. Rotor lifts: Two Hardwicke-Etters. Conveyor distributors: One 4-80 Lummus. Presses: One Continental steel bound up-packing. One Murray all-steel down-packing. One all-steel Hardwicke-Etters single box. Pumps: One each Murray, Continental, Lummus, Cen-Tennial and Alamo. Seed scales: One set Hardwicke-Etters, one set Lummus. Engines: One V-8 Le Roi, two Twin Six MM, one 6-cylinder MM, one 6-cylinder Buda. Electric motors and fans in various sizes.—Bill Smith, Box 694, Phones OR-4-9626 and OR-4-7847, Abilene, Texas.

FOR SALE—First class 4-80 modern plant — to appreciate this real bargain come see it in operation now.—Calvin North, Mgr., Benavides Mill & Gin Company, Benavides, Texas.

FOR SALE—One 2-stand 80-saw Lummus gin outfit, complete with diesel unit. Will sell all or any part. Fitzgerald Oil & Fertilizer Co., Inc., P. O. Box 169, Fitzgerald, Ga.

FOR SALE—Heavy duty Gullett steel press, like new. Complete with pump, tramper, condenser, etc., and brand new extra ram.—Paul Falkenstein, P. O. Box 1502, Phone FAirview 5-7419, Bakersfield California.

FOR SALE—One complete Murray gin. Perfect condition. Will sell to be moved or to be run. Due to manager's health, must sell immediately. \$8,000 for complete gin and buildings. Located 25 miles east of Dallas, Farm Road 7. Write or call Vernon Schrade, CHURCHILL 5-3304 or CHURCHILL 5-3347, Rowlett, Texas.

The Soil Bank Bites

"THE SOIL BANK BITES," is the title of an editorial in the Andalusia (Ala.) Star-News, following the announcement that Southern Cotton Oil Division of Wesson Oil & Snowdrift Co., Inc., was to discontinue its operations there, effective Sept. 1. In part that editorial follows:

"There are various estimates of the worth of the Republican-authored Soil Bank.

"The economy of Andalusia and Covington County felt the sharp bite of retarded business, a direct product of the Soil Bank, this week.

"The Southern Cotton Oil Co., which has been processing cotton and peanuts in Andalusia since 1892-93, is closing its doors. A pay roll, averaging between \$35,000 to \$40,000 per annum, is lost to South Alabama.

"Announcement that Secco was going out of business here was accompanied by the statement of company officials that the shut-down was necessary because cotton and peanut acreage are being slashed. This is a trend for the past several years.

"The Southern Cotton Oil Co., with more than six decades of service in Andalusia, was able to weather the depression of the early '30's when Andalusia was, for a time, without a bank. The Soil Bank has knifed a business enterprise that the Great Depression could not dent.

"Down in our neighboring city of Brewton, there stands a concrete slab, once the site of a prosperous cotton gin. Only three years ago, that Brewton gin was processing 4,000 bales of cotton annually, at a gross value of \$800,000.

"The cotton people like to relate that the yield from lint turns over seven times in the community where it is grown and ginned. Using that yardstick, Brewton lost an industry worth \$6 million in business.

"It is going to be difficult to convince business interests and merchants that the Soil Bank is not costing more than it is worth."

TWO MODERN gins for sale, machinery only, to be moved, both equipped with drier and lint cleaners, priced very reasonably. Also several extra pieces of modern machinery such as dropers, condensers, packers. Contact Jim Hall, P. O. Box 751, Phone Riverside 1-1393, Dallas, Texas.

LOWER RIO GRANDE VALLEY GIN for sale—5-80 Lummus with Super Jet lint cleaners, double cleaning and drying, demountable braceo bunks, cotton trailers, excellent location.—P. O. Box 2045, Harlingen, Texas.

Equipment Wanted

WANTED TO BUY—Truck scales 20', or longer, any make.—Texas Waste Materials, Box 5267, Corpus Christi, Texas.

Power Units and Miscellaneous

FOR SALE—One full diesel engine—was originally 150 h.p. but changed over to open head. With changeover Fairbanks-Morse figures it develops 10% more horsepower. Complete with two air tanks, one air compressor, less motor, and 1-20" all-leather belt about 60' long. Used only six months since changeover. \$1,200. —Regis La-Grange, Arnaudville, La. Phone PL 4-3401.

FOR SALE—(1) 150 HP New GE Slipring Motor, 3/60/440/720 RPM, Type M, Ball Bearing, Open Dripproof, \$3,875.00 Net. (2) 200 HP New Master, Slipring Motor, 3/60/440/900 RPM, Ball Bearing, Open Dripproof, \$5,130.00. —W. M. SMITH ELECTRIC CO., 3200 Grand Ave., Dallas, Texas.

FOR THE LARGEST STOCK of good, clean used gas or diesel engines in Texas, always see Stewart & Stevenson Services first. Contact your nearest branch.

SEE US for good used re-built engines, MM parts, belt lace, and Seal-Skin belt dressing.—Fort Worth Machinery Company, (Rear) 913 East Berry Street, Fort Worth, Texas.

FOR SALE—One Le Roi L3000-RXISV 12-cylinder 300-350 h.p. Cotton gin equipped, guaranteed in operating condition. Priced low to move. One General Motors diesel twin—6-cylinder, cotton gin guaranteed in operating condition—300 h.p. @ 1800 RPM. Priced low to move. One Minneapolis-Moline Twin 6 Model 1210-12A, cotton gin equipped, guaranteed in operating condition—200 h.p. Priced low to move.—W. M. Smith Electric Company, H.A. Hamilton 8-4606, 3200 Grand Avenue, Dallas Texas.

FOR SALE—9' x 34' 20-ton modern Howe truck scale. Excellent condition. Wood deck. Price \$1,250. —J. C. Noblin, P. O. Box 53, Phone 217, Quinton, Oklahoma.

307,874 Bales in Valley

Texas Lower Rio Grande Valley had ginned 307,874 bales of cotton to Aug. 18, the Valley Farm Bureau reports. A year ago, the total was 255,551 bales. Most observers expect the Valley to produce 350,000 to 400,000 bales.

Save by Storing Tung Nuts

Producers can save almost \$1 a ton in hauling and processing charges by storing tung nuts off the ground after harvest, USDA reports. Lower moisture content of bin-stored fruit is responsible for the saving.

■ VERNON P. MOORE, National Cotton Council, Memphis, is back on the job after an illness and operation.

Western Cottonoil Mill Resuming Operations

Western Cottonoil Co.'s Brownfield, Texas, Mill, which has been on a stand-by basis for the past two years, is to be reactivated immediately, it has been announced by Roy Mack, Plains District Manager, of Lubbock.

John Odell, former Brownfield Mill manager, and more recently on an in-



J. L. ODELL

terim assignment with the company's Lubbock Mill, will return as manager of the Brownfield Mill.

"Conditions on the Plains, such as drouth, acreage controls, the Soil Bank, and the subsequent shortage of seed, made it necessary for us to place the Brownfield Mill on a temporary stand-by basis two years ago," Odell is quoted as saying. "We are happy to say that, with the prospects of a larger crop this year, the decision has been reached to reactivate the Brownfield Mill."

The mill will receive and store cottonseed, delint and process it, in addition to handling the products, cake, meal and hulls.

J. V. Gilbert, a 30-year veteran with Western Cottonoil Co., will return as superintendent of the mill.

Farm Advisor Returns

George E. Ferry, Bakersfield, Calif., farm advisor, has rejoined the staff after a year's leave to complete work for a master of science degree. He took advanced courses in plant physiology, soils and irrigation.

Seed Distributors Meet

Arizona Cotton Planting Seed Distributors at the Aug. 6 annual meeting made plans to grow seed for 400,000 acres of cotton in 1959. Re-elected to the board of directors were David Lee, Cecil Colletterie and J. Clyde Wilson.

■ WILLIAM P. HATCHETT has become agronomist at Texas Experiment Substation, Lubbock. He succeeds DR. EARL BURNETT, named superintendent of the Big Spring Substation. Plains Cotton Growers has provided \$2,000 to aid his research.



They Never Saw a Cotton Stalk

THE BOLL WEEVILS shown here have never seen a cotton stalk, but they're healthy and thriving. Adult boll weevils are shown on the right, and their eggs are seen on the left in this Texas Experiment Station photo. As reported earlier in The Press, USDA-Texas researchers have developed feeding solutions on which boll weevils will live and reproduce without any food from cotton or other plants. This feeding method enables year-round production of weevils for research, and may lead to important developments in new methods to control the cotton pest. Similar processes are being used in pink bollworm research.

No Jestice at Chitling Switch

Ubberson Loses Again to Mrs.

CHITLING SWITCH, ARK.
AUG. 22, 1958.

DERE MR. EDITOR:

I dont know whether you and your wife raise no flowers and garden sass or not but we do and it dont cause nothing but trouble. The Mrs. raises mighty purty flowers but when I want to know the name of one of them she strings out a word about one and one-half foot long that a doctor could not pronounce and I dont know any more than I did when I first ast her.

I got enough of it and I half got a old time buddy in Memphis who raises flowers and I called on him. We back-patted and chewed the fat and I told him what I wanted and that was some flowers that had a name as long as your arm and not very well known and they must be purty. He fixed me up and told me how to get them home in the back end of my car without being hurt. I brung them home and went out into my sass garden dug up about a one-half row

of onions and planted them and they was in full bloom and mighty purty. I did not say nothing to the Mrs. because I knew that she would find them even if I planted them under the house because you cant hid nothing from a woman which you ought to know.

Well no sooner than I got back to my next meal she found them and ast me where I got them and I told her I raised them and she said no such, they wasnt there yesterday. I said now look I dont stick my nose in your flowers so you keep yours out of my cabbages and onions and etc. She said what kind of flowers are they and I said well that there first one you see is a cuspidoria the next one is a shylockie the next is a goldurnya and the last one is a spitunia. That aint no petunia she said and I said I didn't say it was, I said it was a spitunia and theys a lot of difference.

Anyways I left the house and when I come back she had taken my flowers and she put them in her flower bed and

she had a book and she said I found out what kind of flowers they are and you are a boob to think that they was what you called them and they need care which they wont get in no onion bed. Well I didnt say nothing but I went out in the country a little piece and I got me four good plants of dog fennel which was about to bloom and I dug down deep enough not to disturb the roots and I put some of this here quick fertilizer on them and watered them down and in a few days, Mr. Editor, I was surprised. That there dog fennel did itself proud. It was full of blooms and it was kind of pretty being out by itself. Well I knowed what was coming and when the Mrs. caught me away from home

Dere Mr. Editor:

A feller ast me the other day what was my way of cooking chitlings and said it ought to be good because I lived in Chitling Switch. Well, Mr. Editor, I am a good cook and I can cook up anything except a deal. I half heard a long time about deals being cooked up but I never cooked up one but I would of liked the chance of cooking on these here new deals, fair deals and raw deals because I give this here feller my way of cooking chitlings.

You get about 1½ lbs. of chitlings homemade, storebought or canned and see that they are about 1 in. in size the long way. Add 1 can tomatoes and 1 can tomato paste ½ green pepper 1 teaspoonful garlic salt 2 med. size onions 3 tbspoons chili powder 1 teaspoonful italian seasoning ½ teaspoonful filet gumbo 1 can consomme and one cup of water. Let it simmer for maybe coupla hours. This ought to feed six people.

After letting it simmer as above then take the dam thing and throw it out of the window.

Yourn,

Chef Ubberson

P.S.—If you will use chopped beef instead of chitlings it will make a pretty good mess—but try it any way you want to.

B. U.

she swiped the dog fennel and put it in a box right under my window.

I ast her why she didnt let my flowers alone and she said no flower is born to waste its sweetness on the desert air and I said my garden aint no desert and she said well if you would spend a little time reading some poultry instead of trying to fool me you would know what I mean. Mr. Editor, when you try to play a joke on your wife all you do is wind up with a bunch of dog fennel under your window. There jest aint no jestice.

YOUR'N,

B. Ubberson.

Trading Stamps Use Textiles

Trading stamps provide a market for \$39 million worth of textiles annually, Sperry and Hutchinson Co. estimates. A study indicates that this textile volume employs 6,776 persons and paid \$17,900,000 in wages.

MODERN STEEL STORAGE

All-Steel Self-Filling Non-Combustible
BUILDINGS

For—

• COTTONSEED

• SOY BEANS

• PEANUTS

Designed, Fabricated and Erected
Confer with us on your storage problems

MUSKOGEE IRON WORKS

Muskogee, Oklahoma

ALL SIZES

PAPER AND METAL

TAGS

Guaranteed Best Quality and Service

ALL COLORS

Texas Tag & Specialty Co.

WOLFE CITY, TEXAS

• Peak Exports Show Changes in Areas

U.S. FARM EXPORTS in calendar 1957 showed marked changes in destinations, as well as reaching an all-time peak value of \$4,507,000,000.

Quality also was at an alltime high. Most of the value increase was in cotton, up 45 percent, reflecting the building up of relatively low foreign stocks as the result of CCC sales at competitive world prices. Other increases were food grains, four percent; tobacco, seven percent. Declines included feed grains, two percent; fats, oils and oilseeds, two percent; fruits, nuts and vegetables, four percent; animal products other than fats and oils, two percent. There was no change in private relief shipments, USDA reports.

Nearly 70 percent of exports were marketed in 12 countries. Twelve countries each took more than \$100 million worth of U.S. farm products in 1957. Together they were markets for 68 percent of U.S. farm exports compared with 62 percent in 1956. It was significant that this country's largest markets in 1957 included some of the less developed as well as industrially advanced nations. But a substantial part of the trade with less developed countries was under U.S. government export programs, shipments to Asia gained by \$215 million, or 22 percent. Shipments to Oceania were up 59 percent; Latin America, 10 percent; Europe and Canada, each 4 percent. Shipments to Africa declined by 31 percent.

New Bulletin

SOIL TESTS SUMMARIZED IN PUBLICATION

"Fertilization and Soil Test Studies on Cotton, 1953-55," has been published by the University of Arkansas.

To permit greater precision in evaluating soil testing methods as reliable indicators of fertilizer nutrient needs for crops, soil scientists with the Arkansas Experiment Station conducted tests on cotton fields of cooperating farmers in southwestern and eastern Arkansas.

These tests are attempts to compare soil test results with crop response when recommended fertilizer nutrients are added. The tests are supervised by the Soil Testing and Research Laboratory at Fayetteville, and the Eastern Arkansas Soil Testing and Research Laboratory at Marianna.

Some of the highlights of the fertilization and soil test as summarized by Richard Maples and Dr. R. L. Beacher in Report Series 78, are:

Nitrogen fertilization alone increased cotton yields by 20 to nearly 700 pounds of seed cotton per acre on 23 of 26 farms checked during 1953-55. The nitrogen fertilizer rates varied from 40 to 140 pounds actual nitrogen an acre.

Phosphorous fertilizer applications of 30 to 100 pounds of phosphate an acre, along with nitrogen or nitrogen and potash, boosted yields by 14 to nearly 450 pounds of seed cotton an acre in some fields.

Forty to 100 pounds of potash fertilizer spurred yield increases on 21 farms. The increase was 600

pounds of seed cotton an acre at one test location.

Soil tests for pH, organic matter, available phosphorous, exchangeable potassium, and exchangeable magnesium were made on composite samples from all test sites before treatment.

Addition studies are underway to refine nutrient testing methods and their interpretation.

Report Series 78, "Fertilization and Soil Test Studies on Cotton," is available from the Bulletin Room, Experiment Station, University of Arkansas, Fayetteville. Single copies also are available free from any county Extension office in Arkansas.

Yugoslavia Lowers Tax On Edible Oils

In an attempt to increase domestic consumption of edible oils, the Yugoslav government has reduced the turnover tax, which is a tax on oil-processing enterprises by about 2.7 cents per pound. This tax reduction is expected to lower retail prices about seven percent, USDA reports.

Last year the turnover tax was reduced by about the same amount, but the reduction had little apparent effect on consumption. However, this second reduction and the resulting drop in retail prices is expected to encourage consumers to shift to vegetable oils. Substantial quantities of U.S. edible oils have been sold to Yugoslavia under Title I of the P. L. 480 program.

moyst

"TYPE N" liquid wetting agent

This is the new and improved "Type N" MOYST® liquid wetting agent. It is low-foaming, practically colorless, and thin enough to pour and dissolve readily. "Type N" MOYST® is a non-ionic compound and is only slightly affected by the pH and mineral content of the water used.

By using 1 quart MOYST® "N" to 100 gallons of water with STATIFER® units in gins, you are sure of a fast penetrating solution which assures even distribution of moisture in the bale. Costs less than 2¢ per bale.



BEST for GINNING

Most economical.

Excellent For
Use In Mechanical
Cotton Pickers

Write, Wire or Phone Today

SAMUEL JACKSON MFG. CO.

P. O. BOX 5007 LUBBOCK, TEXAS POster 2-2894

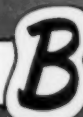


belton superior bagging

the best protection
against handling
and weather



2 lb. weight—21 lbs. TARE
Open weave Jute Bagging
Pretested for uniform strength
Makes cleaner, stronger bales
"Built to Stand the Pressure"



BELTON BAGGING CO.

Belton, South Carolina

• Texas Crushers Name Chairmen

TEXAS Cottonseed Crushers' Association directors, committee chairmen and vice-chairmen, met recently to develop plans for strengthening the Association's program on all fronts. The board went on record as favoring an increase in cotton acreage—allowing growers a choice.

W. D. Watkins of Abilene, president of the Association, announced the standing committees for the coming year.

These include:

Agricultural Committee—T. J. Harrell, chairman, Fort Worth; F. Earl Davis, vice-chairman, Harlingen; A. J. Mills, vice-chairman, Stamford; D. B. Denney, Wolfe City; Joe Flaig, Dallas; W. L. Goble, Jr., Waco; R. L. Horton, Waxahachie; Roy Mack, Lubbock; P. A. Norris, Jr., Fort Worth; R. P. Tull, Terrell; and S. J. Vaughan, Jr., Hillsboro.

College Relations Committee—R. L. Horton, chairman, Waxahachie; Roy B. Davis, vice-chairman, Lubbock; Paul J. Lemm, Jr., vice-chairman, Brenham; B. W. Beckham, Jr., Corpus Christi; Rufus Grisham, Lubbock; R. G. Fleming, Lamesa; Murrell Rogers, Thorndale; S. J. Vaughan III, Hillsboro; and John H. Williams, Waco.

Insurance and Safety Committee—D. B. Denney, chairman, Wolfe City; W. L. Goble, Jr., vice-chairman, Waco; George Hoffman, vice-chairman, Alice; Horace Belew, Abilene; J. W. Simmons, Jr., Dallas; C. L. Walker, Jr., Temple; and Henry Wunderlich, Corpus Christi.

Membership Committee—J. V. Stiles, chairman, Taylor; O. E. Key, vice-chairman, Lubbock; Rex Steele, vice-chairman, Harlingen; R. A. Montgomery, El Paso; and J. Carlyle Newberry, Gonzales.

Peanut Committee—C. S. Matthews, chairman, Brady; W. E. Fricke, vice-chairman, Fredericksburg; B. C. Reese, vice-chairman, San Antonio; John Burroughs, Portales, N.M.; Zan Burroughs, Cisco; and Hugo G. Schmitt, Seguin.

Pink Bollworm Committee—Robert A. Hutchison, chairman, Raymondville; George B. Hall, vice-chairman, El Paso;

R. G. Fleming, vice-chairman, Lamesa; F. Earl Davis, Harlingen; W. W. Moore, Houston; Rex Steele, Harlingen; and Dixon White, Lubbock.

Products Committee—R. P. Tull, chairman, Terrell; Peter Fox, vice-chairman, Sweetwater; T. J. Barlow, vice-chairman, Abilene; D. B. Denney, Wolfe City; J. H. Fox, Hearne; C. C. Harlan, Paris; T. J. Harrell, Fort Worth; J. S. Morrison, Fort Worth; J. M. Tindall, Twitty; and Fred Wilson, Ennis.

Public Relations Committee—Dixon White, chairman, Lubbock; Geo. W. Brasell, Jr., vice-chairman, Lubbock; Fred Wilson, vice-chairman, Ennis; C. W. Graham, Fort Worth; R. R. Kelley, Stamford; R. L. McClung, Hamlin; E. J. Parton, Marlin; F. D. Phillips, Sherman; George Quinn, Victoria; Fred Cooper Smith, Georgetown; and W. C. Smith, Wichita Falls.

Special Task Committee—Roy B. Davis, chairman, Lubbock; Henry Wunderlich, vice-chairman, Corpus Christi; C. L. Walker, Jr., vice-chairman, Temple; D. B. Denney, Wolfe City; A. J. Mills, Stamford; Don Morton, Fort Worth; W. C. Rhoden, Abilene; R. P. Tull, Terrell; and S. J. Vaughan, Jr., Hillsboro.

Water Conservation and Utilization Committee—J. H. Fox, chairman, Hearne; R. A. Montgomery, vice-chairman, El Paso; J. W. Crawford, vice-chairman, Quanah; Don Guitart, Colorado City; R. R. Kelley, Stamford; John G. Kerlick, Yorktown; Edwin O. Lundgren, Elgin; and Rex Steele, Harlingen.

"Recleaned" or "Blended" Cotton Is Discussed

USDA Building in Washington was the scene Aug. 18 of a meeting which could have far-reaching effects on the cotton industry.

Members of the American Cotton Shippers' Association, the American Cotton Manufacturers' Institute, Inc., and USDA discussed "recleaned" or "blended" cotton.

ACMI's position on the matter is summed up in a letter from Ellison S. McKissick, chairman of ACMI's committee of cotton, to Marvin L. McLain, Assistant Secretary of Agriculture. McKissick said:

"Recleaning, and 'blending,' or any process that involves reopening and altering the original bale of cotton, introduces a new element into cotton merchandising. Whether such processing is good or bad, wise or unwise, profitable or unprofitable, the fact remains that the resulting product is no longer raw cotton, an agricultural commodity, but is a processed cotton product, just as are yarns and cloth.

"For this reason, any attempt to have this material given the same status as raw cotton is of vital importance to the mills, who represent the consumers of the majority of raw cotton produced in this country."

Mill Offering Prizes

Western Cottonoil Co., Willcox, Ariz., is offering prizes to Future Farmers and 4-H members for outstanding cotton projects.

Firm Aids Cotton Studies

J. G. Boswell Co. is providing fellowships for cotton research by the University of Arizona.

Compress, Warehouse Group Sets Dates

National Cotton Compress and Cotton Warehouse Association will have its annual meeting April 21-22, 1959, at the Galvez Hotel in Galveston, Texas.

An equipment show will be held at the Moody Convention Center at Galveston during the convention, according to announcement of John H. Todd, Memphis, executive vice-president, who stated that it was necessary to make a change in the time and place of the meeting.

More Per Acre in Texas

Texans will get more dollars per acre for their 1958 lint and seed than ever before, C. B. Spencer, Texas Cottonseed Crushers' Association, points out. With a record yield of 373 pounds of lint per acre, and a 35.04 middling inch loan price, lint income will be about \$130 per acre. Seed value is estimated by Spencer at \$15 per acre.

Spencer stresses the importance of marketing quality cotton this season, urging farmers to bring ginner's clean, dry cotton that has not been trampled in the trailer.

Snell in Hospital

J. B. Snell, Minden, La., crushing leader and past president of National Cottonseed Products Association, is in Mercy Hospital, New Orleans.

■ T. H. GREGORY, the former executive vice-president of National Cottonseed Products Association, now retired, is enjoying improving health and would welcome a note from his friends. His home address is 218 Hawthorne, Memphis.

Enjoy a
steady
year 'round
business

...install

KELLY DUPLEX

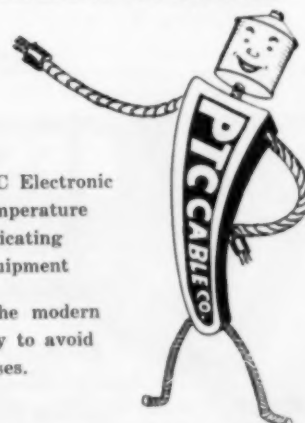
feed mill
equipment



Plan now to cash in
on the increased im-
portance of grain.
Write today for our
complete line catalog.

The Duplex Mill & Manufacturing Co.
Dept. CG, Springfield, Ohio

YOUR "INSURANCE" AGAINST SPOILAGE



PTC Electronic
Temperature
Indicating
Equipment

—the modern
way to avoid
losses.

Write for Preliminary Estimate Sheet

PTC CABLE CO.
200 ANCHOR BUILDING
ST. PAUL 1, MINNESOTA

U.S. Textile Men Attend Conference in Sweden

American Cotton Manufacturers Institute, Inc., will be represented by a five-man delegation at the annual conference of the International Federation of Cotton and Allied Textile Industries in Stockholm, Sweden, beginning Aug. 25.

William J. Erwin, president of Dan River Mills, Inc., Danville, Va., will head the delegation, which will report on the current status of the U.S. textile industry. Erwin also is chairman of ACMI's foreign trade committee.

Other members of the delegation will be R. Houston Jewell, vice-president of Crystal Springs Bleachery, Inc., Chickamauga, Ga.; F. E. Grier, president of Abney Mills, Greenwood, S.C., and chairman of Erwin Mills, Durham, N.C.; J. Craig Smith, president of Avondale Mills, Sylacauga, Ala., who also will represent the National Cotton Council, an associate member of the federation, and Robert C. Jackson, executive vice-president of ACMI, Washington.

ACMI is not a member of the organization but is studying the possibility of an affiliation, according to President Halbert M. Jones of Laurinburg, N.C. He added that the federation serves as an international clearing house for ideas, opinions and experiences relating to the industry and maintains close contact with governments of countries interested in textiles.

The organization includes the textile and allied industries of England, France, Japan, Austria, Belgium, Denmark, Sweden, Switzerland, Egypt, Finland, West Germany, Holland, Italy, Norway and Portugal.



Going to Texas Tech

JOE JONES will become a member of the agricultural engineering teaching staff at Texas Technological College, Lubbock, on Sept. 16. He will be associated with cotton ginning engineering instruction at Tech. Jones formerly was Texas Extension Service ginning engineer.

Roy G. Davidson Dies

Roy G. Davidson died Aug. 15 in Dallas. He formerly was assistant regional director of the USDA Cotton Division in Memphis, Tenn.

Walter E. Utley Dies

Walter E. Utley, 88, a longtime resident of Dallas, died Aug. 15 in a Houston hospital. He had been living with a daughter, Mrs. Olga Liles in Houston, since the death of Mrs. Utley in 1954.

He was a native of Bellville, Ill., and moved to Texas in 1878 and later lived in Indian Territory (now Oklahoma) before moving to Dallas in 1912. He was employed by Continental Gin Co. for many years before his retirement several years ago.

Surviving are two daughters, Mrs. Liles, and Mrs. Irene Humphrey of Alexandria, Va., one son, George K. Utley of Dallas, and four grandchildren.

Pink Bollworm Hearing

A hearing Aug. 26 will discuss whether stub and volunteer cotton will be banned through Arizona and whether quarantined areas in Maricopa County must plow under stalks by Dec. 31. The objective would be to control the new pink bollworm outbreak in Maricopa. The hearing is being held at Arizona State College, Tempe.

More Safflower Planted

Southern Alberta, Canada, reports safflower acreage doubled to 30,000 acres in 1958. Yields last year ranged up to 1,000 pounds per acre.

Hobgood Succeeds Jones

Price Hobgood has been appointed head of the agricultural engineering department of Texas A&M College. He succeeds Fred Jones, who is retiring.

TAKE A THRIFTY VACATION-STAY AT...



You can invest very little... yet enjoy the glamor and fascination New Orleans offers. Spacious airy rooms, complete with all comforts and conveniences, including radio, air conditioning and the BEST in service. In the Commercial Center on Lafayette Square close to all main New Orleans activities.

The Most for your Travel Dollar

• Reduced Summer Rates from

New Orleans

\$4

UNIFORM MOISTURE CONTENT

THE Lustrint Way

LUSTRLINT is a free-flowing white powder—the most powerful dry-form wetting agent suitable for cotton. Dissolves quickly — wets cotton instantly. LUSTRLINT water penetrates... the lint holds the water, yet feels dry. Unconditionally Guaranteed to reduce static and insure more uniform moisture content.

THE MODERN METHOD FOR BETTER RESULTS

LUSTRLINT water gives you Quicker, More Efficient Ginning... and Easier Baling, fewer broken bales, and less trouble from static. Non-toxic — not harmful to cotton fibres.

QUICK, SAFE, AND ECONOMICAL

Your Check or Money Order for \$5.00 will bring you POST-PAID enough LUSTRLINT to treat 1100 Gallons or write for a FREE SAMPLE.

LUSTRLINT

AGRICULTURAL SPECIALTIES CO.

P. O. Box 627

LINDSAY, CALIFORNIA

Clean Gin Yards

(Continued from Page 7)

to find better means of handling trash at the gin.

• **New Equipment Helps**—New designs in trash handling equipment have come from several sources throughout the industry. They are being tested for practical use in cotton gins by the USDA Ginning Laboratories and also at commercial gins. While some of the engineering designs are still under research study and others have had only one to three years of field trials, it is the considered opinion of many gin engineering authorities that the principles set forth in our Special Bulletin No. 1 will definitely help to improve the efficiency of collecting gin trash, minimize the loss of dust in the air, temporarily store the trash materials for simpler handling to the trash trailer, and leave a cleaner gin yard for public view.

For years, the most widely used dust collector in cotton gins has been the cyclone. In the last three or four years however, a new design has been developed and used in gins which has been extremely successful in collecting all but the most minute particles of dust. When properly installed, they are efficient, considerably lower in cost, and easy to maintain. This type of cyclone, generally referred to as the small-diameter,

high-velocity type, has been successful in handling discharges of dust and trash from suction fans, cleaners, bur machines, and moting systems. Figure 1 shows an installation in California of a battery of small-diameter, high-velocity cyclones, discharging into a common conveyor for the collection of all the trash to a common discharge point. Installations such as these have been very effective and are relatively simple and easy to install. Specific design requirements can be found in Special Bulletin No. 1 and are also available from several commercial sources.

Even newer than the use of small-diameter, high-velocity cyclones is the development of the lint-fly catcher. For years, collecting lint-fly dust and motes from condenser discharges has been an extremely difficult problem. It is well known that condensers discharge large volumes of air at relatively low velocities. Also, it is impossible to impose back pressures of any considerable amount on these condensers without causing backlashing, improper batting, and other troubles. Backlash, of course, is an old problem to the ginner and results in rough preparation, improper doffing, chokages, and other production headaches. It is also recognized that improper batting on condenser screens gives trouble in the press box caused by big-ended and rolling bales and other related troubles. On lint cleaner conden-

sers, improper batting results in rough preparation and poor cleaning efficiency. The balance of air in these machines is extremely important and for this reason, the universal opinion has been that little or no back pressure was allowable in the system.

As a result, many systems for the collection of condenser fly have been tried. Most of these were in the form of large dust houses with various types of baffles, moisture screens, and settling chambers. Some have been reasonably successful. However, for the most part, they have been expensive and inefficient. They required a considerable amount of room on the gin yard, continual maintenance to prevent fire hazards, and a considerable investment.

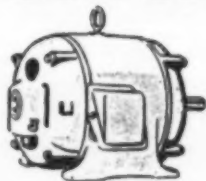
From a first, quick examination, most gimmers would say that the lint-fly catcher shown in Figure 2 would not work. This is a reasonable assumption, since we have often thought that such installations would "hair-over" and cause back pressures which would make it impossible to operate.

Fortunately, however, we found otherwise in the actual operations of these catchers. The action is such that, as the lint-fly and dust builds up on the catcher screen, the weight of the material causes it to be self-cleaning and we find it continually "sluffing off," where it can be collected either in a sack, box, or other type distributor. However, it is vital to keep these catchers dry. Only a little moisture will cause the trash to collect and stick, rather than shed automatically, and consequently give trouble.

• **Can Solve Most Problems**—The use of the two presently known developments, i.e., small-diameter, high-velocity cyclones and lint-fly catchers should, in combination with a bur disposal system (for putting the burs and trash back on the land) solve most gimmers' problems. Health authorities have indicated that, where these systems are carefully engineered and installed, they are satisfying even the most critical demands for trash collection.

Texas Cotton Gimmers' Association has continued its efforts in this field and has recently been notified by USDA that advance research projects are being undertaken to continue the design and development work. At this time, we wish to acknowledge the efforts and interests of those various private companies, individuals, and state and federal research and educational agencies who have done such an outstanding job of tackling a tough problem. Through their efforts, a good part of gimmers' problems can now be solved. There are still improvements to be made, but we know that they will be made as time goes on.

SPARE MOTORS



FOR GINS AND OIL MILLS

Delivered and Installed
Anywhere — Anytime

ELECTRIC MOTOR REPAIR
AND REWINDING

New Motors

Allis-Chalmers
Century
A. O. Smith
Baldor
Delco

Industrial Supplies

Lummus Gin Repair Parts Dayton Belts

LUBBOCK ELECTRIC CO.

1108 34th Street
Phone

Day SH 4-2336
Night SH 4-7827

LUBBOCK, TEXAS



THE *key* TO GREATER EFFICIENCY
AT LOWER COSTS

FRENCH

THE FRENCH OIL MILL MACHINERY CO.

P I O U A O H I O

• MECHANICAL SCREW
PRESSES

• SELF CONTAINED
COOKER-DRYER

• SOLVENT EXTRACTION
PLANTS

• FLAKING AND
CRUSHING ROLLS

Lamesa Group Approves Cotton Classing Fee

Lamesa Cotton Growers, Inc., have set a 15-cents-per-bale fee for cotton classing this fall. The group also appointed a committee for maintenance and repair of the classing office and to secure agreements from gins for the collection of the classing fee.

Farm Bureau Sets Dates

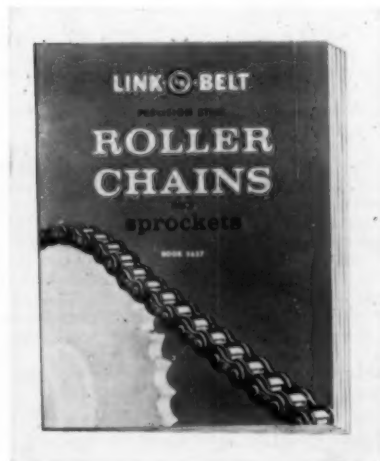
American Farm Bureau will hold its annual convention Dec. 7-12 in Boston.

New Book

ROLLER CHAINS, SPROCKETS SUBJECT OF REFERENCE

The most comprehensive book ever written on Precision Steel Roller Chains and Sprockets, Book 2657, is announced by Link-Belt Co. It contains 154 pages of detailed engineering data illustrating roller chain's versatility in a wide range of applications.

Written to serve as a practical textbook on the use of roller chains for both power transmission and conveyor service, the book contains typical installation conditions, formulas, charts



and diagrams to simplify selection of proper chains for any application.

"Keydexed" for easy reference, the book describes the selection, application, installation, lubrication and maintenance of roller chains and sprockets for drives and conveyors. Also described are chain casings, lubrication and maintenance, sprocket engineering, leaf chains, roller chain flexible couplings and accompanying technical data. The book also serves as a guide to application of corrosion-resistant stainless steel and bronze roller chains. A table lists the degree of resistance of these metals to almost 400 corrosive agents.

Complete listings of all chains appear at the beginning of the drive and conveyor chain sections. Specifications, dimensions and ratings of chains and dimensions of sprockets of each pitch size are presented on facing pages to facilitate selection with stock sprocket listings on immediate following pages.

Precision steel roller chains and sprockets for power transmission service are presented in a 66-page section, with chain illustrations showing chains from one-fourth-inch pitch to three-inch pitch in actual size. Chains and attachments for conveying applications are listed in another 26-page section.

Design features, manufacturing methods and test techniques developed by Link-Belt Co. include burnished shot-peened rollers, lock-type bushings, fatigue resistance, pre-lubrication, and pre-stressing are illustrated and described.

Recent new products include finished bore sprockets, stock shear pin sprockets

and Ny-Steel flat-top conveyor chain.

A copy of Book 2657, "Link-Belt Precision Steel Roller Chains and Sprockets," can be obtained without charge by writing to Link-Belt Co., Dept. PR, Prudential Plaza, Chicago 1, Ill., or the Cotton Gin and Oil Mill Press, P.O. Box 7985, Dallas 26.

Norway Sells Balance of Whale Oil Stocks

All of Norway's unsold whale oil stocks from the 1957-58 Antarctic pelagic expeditions—some 68,000 metric tons (74,950 short tons)—have recently been sold, according to the chairman of the whaling companies' marketing organization, USDA reports.

The selling price was about 8.6 cents

per pound. Earlier sales were made for 9.8 cents per pound, thus the average price was around 9.1 cents per pound, compared to 10.8 cents for the 1956-57 output.

According to press reports, recent sales of whale oil by the United Kingdom and Japan have reduced unsold Antarctic whale oil stocks to between 20,000 and 30,000 metric tons (22,000 to 33,000 short tons).

Directors Chosen by Gin

Serving New Home Cooperative Gin as officers and directors in 1958-59 are Wilmer Smith, president; E. R. Blakney, vice-president; L. C. Unfred, secretary; and Walter Gasper, Dick Turner, B. A. Morrow and M. S. Renfro, directors.

Want to Reach Cotton Gins with Direct Mail?

If you want to supplement your advertising sales messages in "The Press" with a direct mail campaign—we can help you do the job.

We have stencil plates of all cotton gins in every cotton producing state from California to the Carolinas. You can pick your states, or mail to the entire list. Total number of gins on the list is 6320.

Why not let us do a turnkey job for you? Our complete printing plant can produce the mailing pieces, handle all addressing and inserting, and put the finished job in the mails.

Drop us a line for details and prices.

The Cotton Gin and Oil Mill Press

P. O. Box 7985

Dallas, Texas



J. W. WITHERS



K. L. OVERLY

• New Brokerage Firm Is Established

K. L. OVERLY and J. W. Withers have formed a new brokerage firm to deal in vegetable oils and meals, grain and feed ingredients. The firm name will be Overly & Withers, with offices at 4711 Poplar Ave., Memphis 17.

Overly, who is a native of Kentucky and a graduate of Vanderbilt University, was with the Glidden Co. in Louisville, New York and Chicago for 12 years before going to Memphis in

1952 to be associated with Laws, Overly & Shelton. He is first vice-president of the Memphis Athletic Club, president of the Commodore Club, a member of the University Club and a steward of Mullins Methodist Church. He lives with his wife and four children at 4554 Sequoia Road.

Withers is a native of Memphis, and was formerly with E. L. Burgen Co. for five years. He is a graduate of Mississippi State University, past president of Memphis Grain & Hay Association, a member of the Memphis Athletic Club,

the Memphis Engineers Club and the Traffic Club of Memphis. A deacon in the First Presbyterian Church, he is married and has three children. The family home is at 5005 Chickasaw Road.

Both partners are members of the Memphis Board of Trade, Memphis Grain & Hay Association, and Memphis Feed & Grain Club.

Castor Bean Acreage Up

About 25,000 acres of castor beans are under cultivation in this country and production is expected to approach about 26,000 tons, it was estimated Aug. 1. Essentially all of the crop is on irrigated land, from the Texas High Plains westward, says Baker Castor Oil Co.

This total production will be essentially the same as the peak production of the 1951-53 period when there were abnormally high Government guarantees of nine cents and 10 cents per pound. The 1958 production, planted under conditions of lower market prices and guarantee, demonstrates the progress that has been made in better varieties and better machinery.

Crop condition is particularly good in the two areas of greatest acreage, California's San Joaquin Valley and the Texas High Plains. In the latter area, timely control is minimizing damage by a heavy current infestation of false chinch bug. The "curly leaf" condition is unusually prevalent and persistent in Arizona and Southern California this year.

Joe J. Moore Dies

Joe J. Moore, 59, superintendent of the Ralston Purina Mills at Lubbock, died Aug. 8, following a heart attack.

He started his career with Ralston Purina Mills in Fort Worth, March 26, 1930, and was transferred to the Lubbock branch as superintendent in 1941.

Survivors include the widow, Bonnie; three sisters, Mrs. Joe Hodgson, Jacksonville, Fla., Mrs. Jack Pearson, Liverpool, and Mrs. Murry of Stroke-On-Trent, England; and three brothers, Edward, Charles and George Moore, all of England.

Seek Micronaire Rules

Representatives of American Cotton Shippers' Association are in Europe seeking universal acceptance of the Association's rules on arbitration of Micronaire readings.

The delegation is made up of Eric Catmur of Memphis, Dr. Earl E. Berkeley of Houston, W. C. Helmbrecht, Jr., of Dallas and Sam G. Loring of Memphis. Loring is executive vice-president of the ACSA.

The Micronaire is used in determining the fineness of cotton fibers and cotton is being sold more and more on the basis of this quality. The ACSA hopes to have uniform arbitration rules set up for the setting of disputes.

Meeting Site Changed

The National Agricultural Chemicals Association has changed the location for their 25th anniversary meeting to the General Oglethorpe Hotel in Savannah, Ga., according to Lea S. Hitchner, executive secretary of the organization.

Dates remain as originally scheduled, Oct. 29, 30 and 31, 1958.

Attention

Ginners and Oil Millers!

See us for any of the following items:

★ Duplex Gin / Linter Saw Filing Machines

★ Line of Duplex Gummers and Files

★ Hot Seed and Grain Thermometers

★ Complete Saw Training Rigs

★ Blowers, Electric Cotton Samplers

*Special Linter Gummer File
for Tru-Line Carver Machine*

The A. A. WOOD & SONS CO.

Post Office Box 937

Atlanta 1, Georgia

New Yearbook

"ACCIDENT FACTS," IS NOW AVAILABLE

The 1958 edition of "Accident Facts," the National Safety Council's statistical yearbook, is now available. It contains facts and figures on all types of accidents—industrial, traffic, motor transportation, home, farm and school.

Several sections of the annual publication are devoted to occupational accidents, and provide a comprehensive background for an industrial safety program.

Further information on "Accident Facts" and quantity prices may be obtained from the National Safety Council, 425 N. Michigan Ave., Chicago 11.

Arkansas Five-Acre Program Off to Good Start

The Arkansas Five-Acre Cotton Yield and Management Program is off to a good start this year with 232 entries, according to William E. Woodall, Arkansas Extension cotton specialist.

This is the largest enrollment in the program in any one year, Woodall stated. The program is sponsored by the Arkansas Seed Growers' Association and the University of Arkansas.

Fiber Imports Increase

U.S. imports of non-cotton vegetable fibers increased in 1957, USDA reports. Imports of unmanufactured vegetable fibers (except cotton) were valued at \$55,962,035, seven percent more than in 1956.

Manufactured fiber imports included \$82,300,00 worth of jute bags, bagging and burlap; \$29,400,000 in twines and cordage; and flax, hemp and ramie cloth and textile products valued at \$26,800,000.

Japan Buying Less Lint

Japan is reducing cotton imports for the last six months (October-March) of the nation's fiscal year. Imports will be 1,800,000 bales, during the entire year. Only 838,000 of these remain to be imported, 200,000 less than in the first half of the year. About 400,000 bales may be from the U.S.

Cotton Groups To Meet

Plans for 1958 meetings of the Cotton Improvement Conference and the Cotton Disease Council have been announced. Both groups will meet Dec. 15-16 at the Rice Hotel in Houston, just prior to the Beltwide Cotton Production Conference, Dec. 17-18. The cotton Defoliation and Physiology Conference will be held there Dec. 16, also.

New Publication

SPANISH MAGAZINE DEALS WITH COTTON, OILSEEDS

A new Spanish publication, Boletín de Divulgación, is being published by the Institute de Fomento Algodonero, of Bogota, Colombia.

Carlos Giraldo H. is editor of the magazine, which is available without charge from the editorial offices.

New Developments in Cotton Gin Machinery

The information and statements appearing in this department are furnished by the manufacturer of the equipment.

The Murray Co. of Texas announces that a recent development in automating cotton gin machinery is the design of the new "Murray PHD Press-O-Matic" control panel.

A constant bale weight is maintained, predetermined and accurately calibrated by a bale control meter.

When bale weight is obtained, a light comes on, then the tramper automatically stops, a warning horn sounds and the press turns itself, locks self in position, starts the pump for activating the rams, presses the bale and starts tramper operating once again.

After the pressman has tied out the bale, redressed the press with new bagging and dropped the follow-block clear of the press box, the complete process

automatically repeats itself.

This application greatly reduces the amount of costly man-hours at the press per bale, and further expedites the high capacity processing of today.

A manual type of operation is provided also, which allows the operator the flexibility of operating the tramper, the turning of the press, or operating the press pump individually.

■ E. T. HOLLOWELL, Atlanta, field representative of National Cottonseed Products Association, recently served as chairman of a special committee to review the rules and regulations of the Georgia Fat Cattle Show, which is sponsored by the Atlanta Chamber of Commerce each year.



"Heat Treated" Gin Saws

Installed at Your Gin—Call Us

• Gin and Mill Supplies

• Gin Service

COTTON BELT GIN SERVICE, Inc.

"Largest Exclusive Manufacturer of Gin Saws in America."

500 South Haskell

DALLAS, TEXAS

Phone TAYlor 1-0389

GET
what
YOU WANT...
when
YOU WANT IT



As manufacturers and distributors of tools, supplies and equipment for EVERY NEED of Cotton Gins and Oil Mills, we offer you the most complete service in the Southwest.

Call us for ACTION!

**WELL MACHINERY
& SUPPLY COMPANY**

DIVISION OF WORTHINGTON CORPORATION
1629 Main Street Fort Worth, Texas

CALENDAR



• Oct. 20-22—American Oil Chemists' Society fall meeting. Chicago. For information, write AOCS headquarters, 35 East Wacker Drive, Chicago.

• Oct. 21-22 — Spinner-Breeder Conference. Lubbock, Texas. (In conjunction with USDA Cotton and Cottonseed Advisory Committee meeting and South Plains Maid of Cotton Contest.) For information, write Delta Council, Stoneville, Miss., or Plains Cotton Growers, Inc., Lubbock National Bank Building, Lubbock.

• Dec. 6 — Tri-States Oil Mill Superintendents' Association Regional meeting. Greenville, Miss. J. C. Holloway and Billy Shaw, co-chairmen.

• Dec. 17-18—Beltwide Cotton Production Conference. Rice Hotel, Houston, Texas. For information, write National Cotton Council, P. O. Box 9905, Memphis 12, Tenn.

1959

• Jan. 30 — Oklahoma Cotton Ginners' Association annual convention. Skirvin Hotel, Oklahoma City. Mrs. Roberta Reubell, secretary, 307 Bettes Building, Oklahoma City.

• Feb. 8-10—Texas Cooperative Ginners' Association, Texas Federation of Cooperatives and the Houston Bank for Cooperatives, annual joint meeting, Convention Center, Galveston. Bruno E. Schroeder, executive secretary, 307 Nash Building, Austin, Texas.

• Feb. 9-10—National Cotton Council annual meeting. Dinkler Plaza Hotel, Atlanta. For information, write National Cotton Council, P. O. Box 9905, Memphis.

• Feb. 16-17 — Cottonseed Processing Clinic. Southern Regional Laboratory, New Orleans. Sponsored by USDA and Valley Oilseed Processors' Association. C. E. Garner, 416 Exchange Building, Memphis, Association secretary.

• March 3-4—Western Cotton Production Conference. Westward Ho Hotel, Phoenix, Ariz. Southwest Five-State Cotton Growers' Association and National

Cotton Council, P. O. Box 9905, Memphis 12, sponsors.

• March 9-11—Midsouth Gin Supply Exhibit. Midsouth Fairgrounds, Memphis. Sponsored by Arkansas-Missouri Ginners' Association, Tennessee Ginners' Association and Louisiana-Mississippi Ginners' Association, which will have annual meetings in conjunction with Exhibit. For information on exhibit, write W. Kemper Bruton, P. O. Box 345 Blytheville, Ark.

• March 12-14—Texas Cotton Association annual convention at the Statler Hilton Hotel, Dallas. L. T. Murray, Waco, executive vice-president.

• March 13-15—West Coast Division, International Oil Mill Superintendents' Association, annual meeting. Bakersfield, Calif. Harold F. Crossno, California Cotton Oil Corp., Los Angeles, general chairman.

• April 5-7—Texas Cotton Ginners' Association annual convention, State Fair of Texas grounds, Dallas. Edward H. Bush, executive vice-president, P. O. Box 7665, Dallas.

• April 6-7 — Valley Oilseed Processors' annual convention, Buena Vista Hotel, Biloxi, Miss. C. E. Garner, 416 Exchange Building, Memphis, secretary.

• May 10-11-12 — National Cottonseed Products Association annual convention. Mark Hopkins and Fairmount Hotels, San Francisco. John F. Moloney, 43 North Cleveland, Memphis, secretary-treasurer.

• June 7-8-9—Texas Cottonseed Crushers' Association annual convention. Shamrock Hotel, Houston. Jack Whetstone, 624 Wilson Building, Dallas, secretary-treasurer.

• June 7-8—Tri-States Oil Mill Superintendents' Association annual convention. Buena Vista Hotel, Biloxi, Miss. B. C. Lundy and Woodson Campbell co-chairmen.

Stick and Green Leaf Machines

U. S. D. A. Designed

These machines remove so much of all types of trash from seed cotton that you have to see it to believe it.

HINCKLEY GIN SUPPLY CO.

4008 Commerce St., Dallas, Texas



THE *Finest* TELESCOPE EVER BUILT!



A PROVEN PRODUCT

A double suction shed with two Stacy Traveling Telescopes will keep your gins running at full capacity.

We have all necessary valves and fittings to make a perfect job.

Write for details and prices

The STACY COMPANY, Inc.
2704 TAYLOR ST. DALLAS 26, TEXAS

Runs on track—unloads long trucks or trailers without moving up.

Easy to Operate.

Bronze Oil-Lite Bearings Throughout.

Sturdy Construction

A Real Labor Saver

Scientist To Be Honored For Soybean Research

Dr. Henry Borsook, California Institute of Technology, will be honored as 1958 Food Man of the Year at the September meeting of the Southern California Institute of Food Technologists. He is being recognized for the development of the soybean Multi-Purpose Food as research director of the non-profit Meals for Millions Foundation.

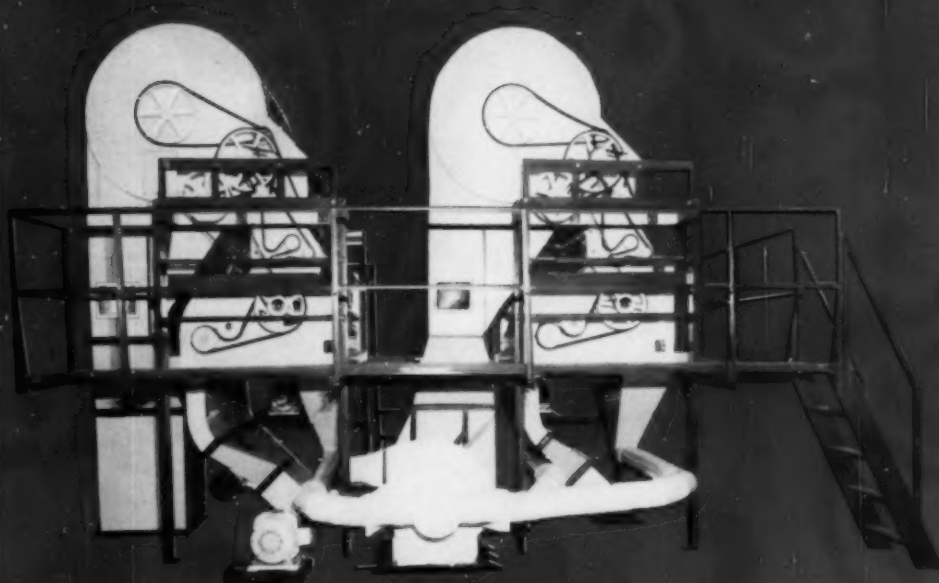
Cazayoux and Martin Head Crushers in Louisiana

Jules Cazayoux, New Roads, was elected president of Louisiana Cottonseed Crushers' Association at the recent annual meeting in New Orleans.

Held in New Orleans, the business session discussed current industry problems and was followed by a dinner.

L. P. Martin of Shreveport was elected vice-president. J. P. Barnett, Opelousas, is the retiring president; and Cazayoux was vice-president during the past year.

■ HARRY A. SCOTT has been named to the newly-created position of international director of sales by the Ralston Purina Co. of St. Louis.



a profit making **PAIR**

MOSS

LINT CLEANERS

IN TANDEM

Put this team to work for you! Get the added bonus of a MOSS behind a MOSS! Assure your customers of the finest lint cleaning possible!

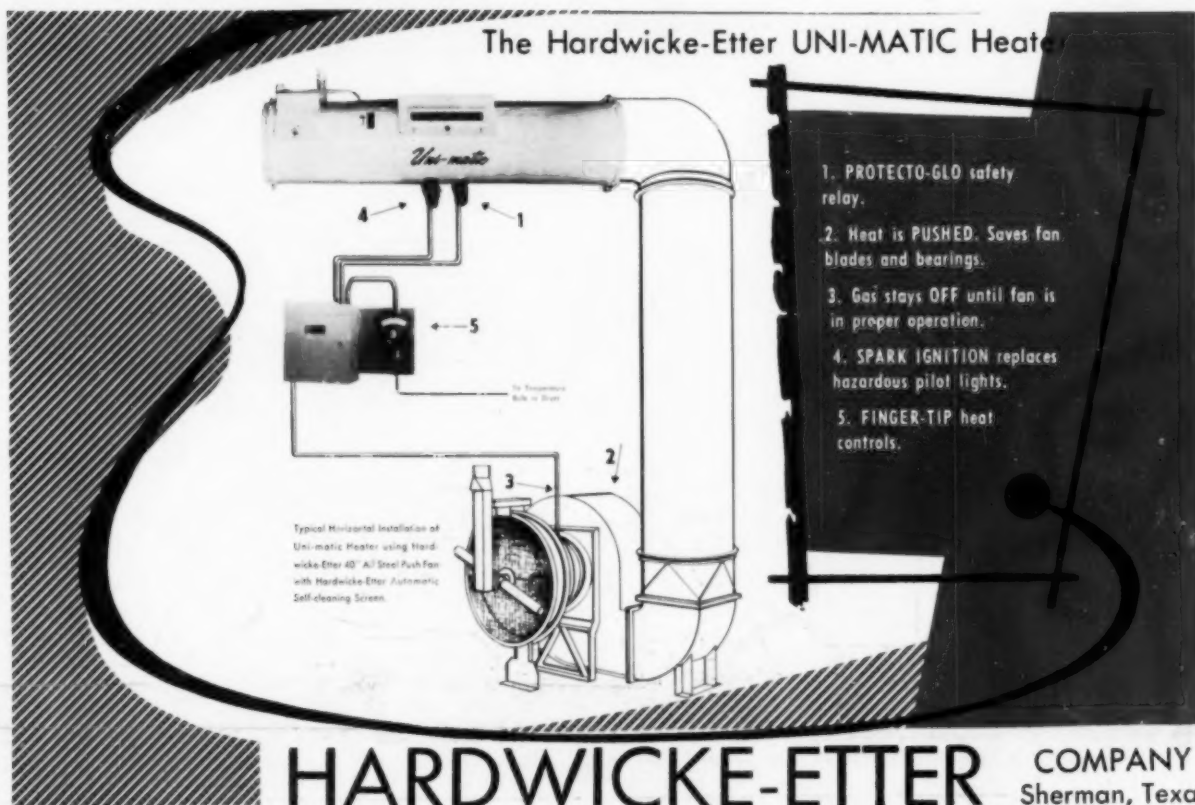
Today, more and more ginner are turning to Moss Tandem lint cleaning as the practical and economical solution to all lint cleaning problems. A MOSS behind a MOSS or behind any other lint cleaner in your plant guarantees higher grades, increases ginning volume, puts you ahead of competition. Dollar for dollar invested nothing matches MOSS in tandem for top returns.

Make this your *most profitable season* with a **SECOND Moss** in your gin. Call us today!

MOSS-GORDIN
LINT CLEANER CO.

3116 Main Street
Dallas, Texas
Third Street & Ave. O
Lubbock, Texas
1132 S. Third Street
Memphis, Tennessee

The Hardwicke-Etter UNI-MATIC Heater



1. PROTECTO-GLO safety relay.

2. Heat is PUSHED. Saves fan blades and bearings.

3. Gas stays OFF until fan is in proper operation.

4. SPARK IGNITION replaces hazardous pilot lights.

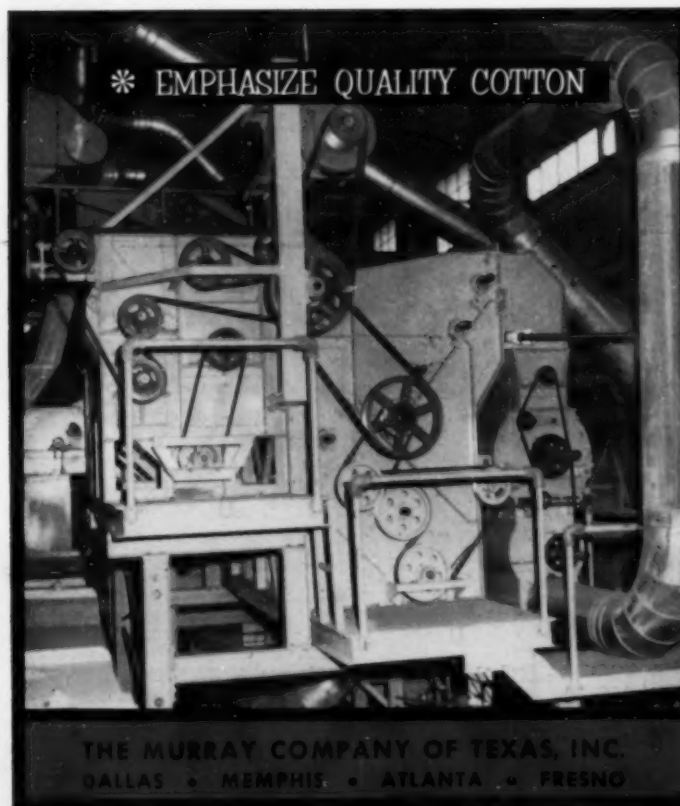
5. FINGER-TIP heat controls.

Typical Horizontal Installation of Uni-matic Heater using Hardwicke-Etter 40" All Steel Push Fan with Hardwicke-Etter Automatic Self-cleaning Screen.

HARDWICKE-ETTER

COMPANY
Sherman, Texas

* EMPHASIZE QUALITY COTTON



THE MURRAY COMPANY OF TEXAS, INC.
DALLAS • MEMPHIS • ATLANTA • FRESNO

TOP RANKING COMBINATION

The Bur Extractor and Stick Machine.

These big 14-foot-long machines can take roughly harvested cotton and extract burs and bur particles, sticks, grass, green leaves, pin trash, and motes the entire length of their cylinders.

They can raise the quality of machine-picked cotton more than any other pre-cleaning operation.

They have rigid, heavy-duty construction, and all moving elements are dynamically balanced.

More detailed information regarding these units can be found in Bulletins No. 34-C and No. 72.

MURRAY